DOCUMENT RESUME

ED 109 502 CE 004 363

TITLE Program of Studies: Driver Education: Grades 9-12.
INSTITUTION Fairfax County Schools, Va.
PUB DATE 3 Sep 74
NOTE 88p.; For related documents, see CE 004 361-366

EDRS PRICE MF-$0.76 HC-$4.43 PLUS POSTAGE
DESCRIPTORS Course Content; *Curriculum Guides; *Driver Education; Instructional Materials; Resource Materials; Secondary Education; Skill Development; Teaching Methods; Traffic Safety; Unit Plan

ABSTRACT

The first two sections of the driver education curriculum guide for grades 9-12 provide brief statements concerning program description and course objectives. Section 3 is divided into two parts: the first part deals with classroom teaching and includes a nine-unit course outline on driving skills and driver preparation and an appendix consisting of identification lessons, suggested projects, and guides to literature, films, and transparencies; the second part deals with in-car instruction and includes a seven-unit course outline on car operation and an appendix consisting of a literature guide, diagrams of various driving maneuvers and a multiple-car facility, and suggestions for limited commentary driving. Each unit in the course outline lists learning concepts, student behavior, learning activities, resources, and evaluation. (JR)

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ED109502

PROGRAM OF STUDIES

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CE001363

DRIVER EDUCATION

GRADES 9-12

LETTER OF TRANSMITTAL

Program of Studies defines the instructional program to be implemented in Fairfax County Public Schools. It is to be used by schools in establishing their Commitment to Education as well as a basis for meeting Standards of Quality in Virginia. Schools are encouraged to develop supplemental objectives and program variations in accord with local needs and with the approval of the area superintendent. During the school year 1974-75 the program descriptions and the objectives are subject to intensive review in an attempt to achieve consensus.

The Program of Studies will continue to be developed through the involvement of administrative and instructional personnel, students, parents, and other members of the community. Revision is part of the design of the Program of Studies in order that all persons in the community may parcicipate fully in developing a current, relevant instructional program.

The success of the Program of Studies will depend primarily upon its utilization by teachers and on the continued educational development of our students.

S. John Davis
Division Superintendent

September 3, 1974

INTRODUCTION

The Program of Studies defines the instructional program for Fairfax County Public Schools, kindergarten through grade twelve, and is organized as follows:

Section A - Program Description and General Goals

Section B - Program Objectives

Section C - Suggested Teaching/Learning Strategies

Section D - Prerequisites for Student Placement

Section E - Program Evaluation

Section F - Instructional Material Requirements

Section G - Program Support Requirements

At present the sections are in various stages of developemnt. During the fall of 1974 instructional personnel will receive for use and reaction Sections A and B, and working drafts for Section C. The other sections will be written, reviewed, and completed at later dates as they are dependent upon Sections A and B.

DRIVER EDUCATION

PROGRAM OF STUDIES

FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

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PROGRAM OF STUDIES

DRIVER EDUCATION

SECTION A

DRIVER EDUCATION AND TRAFFIC SAFETY

PROGRAM DESCRIPTION

Driver education and traffic safety consists of a classroom phase and a laboratory phase (in-car). In the classroom, student learning experiences focus on the personal and social factors affecting the safe and efficient movement of traffic. The theory of motor vehicle operation is explored and an understanding is developed of the desirable roles to be played by all users of traffic facilities including drivers, pedestrians, bicylists, motorcyclists and others.

In planning for effective classroom instruction, approaches are selected that will achieve goals through developing basic knowledge, desirable attitudinal behavioral traits, and the fundamental skills needed for efficient operation of motor vehicles.

The performance objectives developed for the laboratory phase parallel and supplement the classroom instruction. In the realistic conditions of the laboratory phase, students may reinforce the knowledge and behavioral traits gained in the classroom as well as acquire new ones in the process of establishing desirable habit patterns.

The organization of classroom instruction varies throughout the school system; some schools use a classroom specialist while others assign the physical education teacher to a block of time involving classroom instruction. Special classroom sections are formed when the need arises. Such classes are scheduled after regular school hours and during the summer term.

In-car instruction and practice driving are organized and administered on a county central level. Under this plan approximately one-half of the eligible students receive in-car instruction during the regular school year and one-half

participate in a special summer program.

The state of Virginia requires a minimum of 36 hours of classroom instruction as a part of the 10th grade health and physical education program. There is no mandatory requirement for in-car instruction unless a student wishes to obtain an operator's license prior to his/her 18th birthday. In this case the student must successfully complete the classroom phase (36 hours) plus 14 hours of in-car instruction, of which seven hours may be spent observing another driver in the same automobile.

PROGRAM OF STUDIES

DRIVER EDUCATION

GRADES 9-12

SECTION B

DRIVER EDUCATION AND TRAFFIC SAFETY

COURSE OBJECTIVES

COURSE NUMBER 7010

General Course Objectives:

It is the overall purpose of this course to provide students with the following:

1. Basic knowledge needed about automobiles, roads, traffic laws, and personal limitations.
2. Development of fundamental driving skills both for normal driving and for reacting properly to emergency situations.
3. A strong desire to operate motor vehicles in a safe and efficient manner.
4. Understanding and support of programs by agencies charged with developing and maintaining a safe and efficient highway transportation system.

The following behavioral objectives are based on the performance requirements of the motor vehicle operation.

The student will:

1. Recognize the importance of driver education in the public education system.
2. Understand the goals and objectives set forth in the driver education class.
3. Understand and meet the requirements for successful completion of the driver education course.
4. Understand and carry out the proper procedures for starting the car, putting the car in motion, executing basic control maneuvers, and stopping the car.
5. Recognize and interpret natural forces and physical laws that affect the safe and efficient operation of the motor vehicle.
6. Explain and demonstrate the perceptual and decision-making technique used in the driving maneuver.
7. Understand and practice the two-second following distance, the four-second stopping zone, and the twelve-second visual lead, and will isolate and stabilize the vehicle in the traffic formation.

8. Identify hazards, conflicts, and challenges and react appropriately by minimizing, separating, and compromising the situation.

9. State all the rules of the road, Virginia traffic laws, and local ordinances.

10. Identify and interpret highway signs, signals, and markings.

11. List and interpret the special characteristics of urban, rural and freeway driving.

12. Satisfactorily operate a motor vehicle in situations of urban, rural and freeway driving.

13. Identify and predict abnormal driving conditions and understand how to employ appropriate driving procedures to compensate for these conditions.

14. Identify emergency situations that occasionally face a driver and demonstrate appropriate procedures for dealing with situations.

15. Identify and appraise physical, physiological, mental and psychological factors that influence the behavior of highway users; and determine appropriate courses of action to minimize the hazards caused by these factors.

16. Assess present capabilities to operate a motor vehicle, know how to compensate for noted shortcomings, and move toward continuous self-evaluation and improvement.

17. Develop a vehicle maintenance and selection program that aids the driver in gaining the optimum performance from a vehicle suitable for trip requirements.

18. Identify and predict special characteristics associated with other highway users with emphasis on pedestrians and two-wheeled vehicles.

PROGRAM OF STUDIES

DRIVER EDUCATION

GRADES 9-12

SECTION C

WORKING DRAFT

STRATEGIES FOR TEACHING AND LEARNING

CLASSROOM DRIVER EDUCATION

The classroom phase of driver education is based upon the tasks performed of an individual while operating a motor vehicle.

Instruction will include those learning activities which are critical to the safe, efficient, and economical operation of the automobile.

The complete program should be devoted to those human functions essential to the driving task with emphasis placed upon the development of complex perceptual and decision-making skills; recognition of those factors that influence the driver; and knowledge of appropriate action to be taken when faced with driving emergencies.

The classroom used for driver education should include facilities that are appropriate for large- and small-group discussion; individual and class research activities; demonstrations and displays; use of multimedia, and audiovisual equipment. Such classroom activities require provisions for storage of teaching equipment and materials, as well as adequate electrical outlets, projection equipment, and room-darkening devices.

DRIVER EDUCATION 9-12
Section C
September 3, 1974

CLASSROOM CONTENT OUTLINE

Unit One - Introduction

-Necessity for Driver and Traffic Safety Education

-Overall Goals and Objectives

-Course Structure

-Facilities, Equipment and Materials

Unit Two - Controlling The Car

-Pre-Ignition

-Moving Forward

-Backing

-Left and Right Turns

-Changing Directions

-Parking

-Vehicle Capability and Forces of Nature

Unit Three - Complex Perceptual Skills

-Decision Making

-Time and Distance

-Hazards, Conflicts and Challenges

Unit Four - Normal Driving

-Rules of the Road

-City and Residential

-Rural and Open Roads

Unit Five - Abnormal Driving

-Conditions of Reduced Traction

-Limited Visibility

-Night Driving

-Distractions and Stresses

Unit Six - Emergencies

-Skids

-Car Emergencies

-Evasive Maneuvers

-Breakdowns

-Accidents

Unit Seven - Influences On The Driver

-Alcohol

-Drugs

-Impaired Vision and Hearing

-Illness

-Fatigue

-Preoccupation

-Carbon Monoxide

-Emotional Stress

Unit Eight - Driver Responsibility

-Virginia Vehicle Inspection Law

-Trip Planning

-Improving the Highway Transportation System

Unit Nine - Consumer Practices

-Selecting an Automobile

-Paying for the Automobile

-Insurance

-Preventive Maintenance

-Selecting a Service Agency

UNIT ONE
INTRODUCTION

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES, RESOURCES AND EVALUATION
Necessity for Driver and Traffic Safety Education	The student recognizes: 1. The degree of dependence of the American public on the automobile 2. That the full benefits of the automobile are not being realized because of the high accident and fatality rates associated with its use 3. That drivers between the ages of 15 and 24 are over-represented in the accident and fatality rate 4. That driving and riding with young drivers represent the greatest hazard young people must face before reaching adulthood 5. That successful completion of a driver education course appears to be the first step in becoming a safe, efficient and courteous driver	LEARNING ACTIVITIES Lecture Group Interactions Visual Presentations Entry Knowledge Quiz Student Response System Learning Activities Package Resource Persons RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education Audiovisual Aids Transparencies: Appendix I, Part E -Into The Driver's Seat Filmstrip Programs: Drivocator II Series: -Strategy for Driving -Identify and Predict Films: Appendix I, Part D -The American Highway -The Driving Scene -Broken Class (Source 1, 2, & 5) -Red Light Return (Source 1) -Our American Crossroads (Source 4)
Overall Goals and Objectives	The student will be able to: 1. Recognize and define driver education as a course designed to prepare students with at least the minimum performance capabilities necessary to enter the traffic system 2. Make sound driving decisions for various driving situations based upon a previously determined strategy and tactics 3. Define legal and moral responsibilities that will help to insure that they become fully functioning members of the highway transportation system	
Course Structure	The students will understand: 1. That driver education and traffic safety are a requirement set forth by the Virginia General Assembly and administered by the Virginia State Department of Education	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES, RESOURCES AND EVALUATION
	2. That the classroom and in-car instruction must be successfully completed if an operator license is to be obtained before their eighteenth birthday 3. That classroom instruction involves a minimum of 36 class periods (36 hours) of attendance 4. That in-car instruction involves a minimum of 14 class periods (14 hours) of instruction of which at least seven periods must be spent in control of the car	EVALUATION Unit knowledge test based on behavioral objectives Section or unit quizzes Section or unit worksheets Monitoring of group discussion by teacher
Facilities, Equipment and Materials	The student will: 1. Understand the importance of the use of audio-visual teaching aids in the classroom instruction 2. Be familiar with and understand the operation and function of the multimedia student response system	

UNIT TWO
CONTROLLING THE CAR

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Pre-Ignition	The student will list the proper sequence of steps and reasons for performance of the following parts of the pre-ignition maneuver: 1. Readiness checks and inspection 2. Procedure before starting the car 3. Starting the car	LEARNING ACTIVITIES Lecture Demonstrations Learning Activities Package Group Interactions Projects and Reports Example: The students draw a diagram of the dashboard of the family car, listing the location and function of each gauge, control device, etc. A licensed driver could monitor the student's identification of these devices.
Moving Forward	The student will list the following steps and procedures involved in moving the car forward and stopping: 1. Putting the car in motion 2. Driving forward 3. Decelerating and stopping 4. Accelerating on a downgrade 5. Accelerating on an upgrade 6. Maintaining a constant and correct speed 7. Bringing the car to a stop	RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education
Backing	The student will list the steps and procedures involved in the following backing maneuvers: 1. Correct body position 2. Backing in a straight line 3. Stopping after backing 4. Turning while backing	Audiovisual Aids Transparencies: Appendix I, Part E -Into the Driver's Seat
Left and Right Turns	The student will list the following steps and procedures involved in making left and right turns: 1. Maintaining control of the car 2. Preparing to turn 3. Making the turn	Films: Appendix I, Part D -Your Car and the Laws of Nature (Source 2) -Reaction, Brakes, Time and Space (Source 1)
Changing Directions	The student will explain the techniques involved in making the following directional changes: 1. U-turn 2. Three-point turn 3. Two-point turn	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Parking	The student will list the procedures for entering and leaving the following parking situations: 1. Parallel parking 2. Angle parking 3. Parking on an upgrade 4. Parking on a downgrade	EVALUATION Unit knowledge tests based on behavioral objectives Section or unit quizzes Section or unit worksheets
Vehicle Capability and Forces of Nature	The student will understand and recognize the following vehicle capabilities and forces of nature that place certain limitations on the driving task: Vehicle Capabilities 1. Suspension system 2. Steering system 3. Power train 4. Braking system Forces of Nature 1. Gravity 2. Centrifugal force 3. Friction 4. Kinetic energy 5. Force of impact	Monitoring of group discussion by teacher

UNIT THREE
COMPLEX PERCEPTUAL SKILLS

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Decision Making	The student will exhibit a thorough understanding of the human functions (identify, predict, decide, and execute) involved in the decision-making process Given a variety of driving situations the student will respond appropriately with acceptable decisions	LEARNING ACTIVITIES Lecture Demonstration Learning Activities Package Group Interactions Projects and Reports Section and Unit Worksheets
Time and Distance	The student will develop the following cognitive skills related to the judgment of time and distance: 1. Ability to judge speed, distance, and spacing of approaching vehicles with consideration of varying speed, distance and angle of approach 2. Ability to judge the amount and change of distance between own car and the vehicle ahead 3. Ability to judge the distance of an approaching vehicle considering the accelerative ability of own car under conditions of varying speed 4. Ability to judge distance in deceleration and bringing the car to a stop The student will understand and demonstrate skills related to the "Two, Four, Twelve and Adjust" technique of determining following distance and visual lead time.	RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education Audiovisual Aids Transparencies: Appendix I, Part E -Into the Driver's Seat -IPDE Series (Maryland) Filmstrip Programs: Drivocator II Series: -Isolate and Stabilize -Evaluating Expressway Dynamics -Principles of Passing -Joining and Leaving Traffic Formations -Compromise and Seperate Ford Time-Lapse Series: -Seeing Habits for Expert Driving Passing Maneuvers
Hazards, Conflicts and Challenges	The student will exhibit sufficient knowledge of the characteristics and advanced cues associated with the following elements that harbor immediate or potentially hazardous situations:	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	1. Limited sight distance 2. Limited maneuverability 3. Insufficient traction 4. Conflicting traction 5. Hazards adjacent to the roadway 6. Other vehicles 7. Multiple vehicle hazards 8. Other road users 9. Changes in the roadway	Films: Appendix I, Part D -Space Driving Tactics (Source 1) -Reaction, Brakes, Time and Space (Source 1) EVALUATION Unit knowledge test based on behaviorial objectives Section or unit quizzes Section or unit worksheets Monitoring of group discussions by teacher Teacher assessment of student's ability to identify, predict, and decide based on traffic situations presented in slides, filmstrips and other visual aids

UNIT FOUR
NORMAL DRIVING

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Rules of the Road	The student will exhibit a complete and thorough knowledge of the rules and regulations for drivers as presented in the Driver's Manual of of Virginia.	LEARNING ACTIVITIES Lecture Demonstrations Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Interactions Games (Example: "Spelling Bee" type activity based on factual information on the rules of the road.) Student observes another driver and practices decision-making technique Student Recognition of Visual Displays (slides) Identifying Signs, Signals, and Markings RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education -Driver's Manual of Virginia Audiovisual Aids Transparencies: Appendix I, Part E -Into the Driver's Seat Filmstrip Programs: Drivocator II Series
City and Residential	The student will be prepared to observe and ultimately respond to other vehicles in the following situations: 1. Unusual noises 2. Oncoming vehicles 3. Vehicles following 4. Cross traffic 5. Interacting with other road users The student will develop techniques deemed important in being observed by other drivers and road users. The student will demonstrate cognitive skills in maintaining adequate separation distance from other vehicles.	
Rural and Open Roads	The student will exhibit and understand the procedures for driving on open and rural highways as well as on mountainous terrain. The following critical situations will be emphasized: 1. Monotonous driving 2. Passing and lane changing 3. Intersections, hills, and curves 4. Freeway entrance and exit 5. Road conditions 6. Potentially hazardous structures 7. Signs, signals, and markings	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
		-Evaluating Expressway Dynamics -Principles of Passing -Joining and Leaving Traffic Formations Ford Time-Lapse Series: -Freeway Maneuvers -Passing Maneuvers -Intersection Maneuvers Films: Appendix I, Part D -Passing Fancy (Source 3) -Signs and Lines (Source 4) -Freeway Driving Tactics (Source 1) -City Driving Tactics (Source 1) EVALUATION Unit knowledge test based on behavioral objectives Combined unites test based on behavioral objectives Section or unit quizzes Section or unit worksheets Monitoring of group discussions by teacher Teacher assessment of the student's ability to identify, predict and decide based on traffic situations, filmstrips and other visual aids

UNIT FIVE
ABNORMAL DRIVING

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Conditions of Reduced Traction	The student will identify and understand compensatory measures for the following road conditions or driver actions that reduce traction: 1. Wet roads 2. Sand drifts 3. Loose debris on the roadway 4. Passing on slippery roads 5. Starting and stopping on snow and ice 6. Parking on snow and ice	**LEARNING ACTIVITIES** Lecture Demonstrations Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Interactions **RESOURCES** Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Traffic Safety Education Audiovisual Aids Transparencies: Appendix I, Part E -Into the Driver's Seat Filmstrip Programs: Drivocator II Series: -Impediments to Vision and Control Films: Appendix I, Part D -How to Drive on Ice and Snow (Source 3) -Automobile Tire Hydroplaning (Source 3) -Winter Driving (Source 3) -Night and Bad Weather Driving (Source 3 & 5) -Night Driving Tactics (Source 1) **EVALUATION** Unit knowledge test based on behavioral objectives
Limited Visibility	The student will cite adjustments and compensations in his/her driving that are required for the following situations that limit driver visibility: 1. Dirty windshield and windows 2. Fog and rain 3. Snow and sleet 4. Condensation 5. Sun glare 6. Sand and dust storms	
Night Driving	The student will: 1. List appropriate actions that are dictated by darkness and the changes in normal driving that are required as a result of reduced visibility 2. Demonstrate a knowledge of the range of the car's headlights 3. Demonstrate an understanding of the relationships between speed and visibility 4. Predict the impact of opposing headlights on vision 5. List the procedures for following and overtaking a vehicle at night	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	6. Cite procedures to follow when faced with headlight failure	Section or unit quizzes Section or unit worksheets
Distractions and Stresses	The student will be familiar with the driving performances required in dealing with the following stresses on the car and occupants: 1. Extreme heat 2. Dextreme cold 3. Deep water 4. Rapid temperature change 5. Crosswinds 6. Steep grades 7. Heavy loads 8. Trailers	Monitoring of group discussion by teacher Teacher assessment of the student's ability to identify, predict and decide based on situations presented in slides, filmstrips and other visual aids
	The student will be able to identify and classify the following general factors which may produce stresses that are disruptive enough to influence driver behavior and affect the car's safe performance: 1. Fatigue 2. Distractions 3. Interior loading 4. Temperature control and ventilation	

UNIT SIX
EMERGENCIES

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Skids	The student will: 1. Identify those variables of both the roadway car which separately or in combination might increase the probability of skidding 2. Identify roadway and weather conditions which separately or in combination require adjustments in speed to reduce the likelihood of skidding 3. List the proper sequence in responding to a skid 4. Recognize that some vehicles will not respond to driver commands because of type, size, weight of load, and load distribution 5. Recognize the need for full steering control when responding to a skid 6. Demonstrate a knowledge of the importance of controlled braking and steering combination when reacting to a skid	LEARNING ACTIVITIES Lecture Demonstrations Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Interactions Accident Analysis Survey Completing Accident Report Form RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education -Driver's Manual of Virginia Audiovisual Aids Filmstrip Program: Drivocator II Series: -Reacting to Emergencies Ford Time-Lapse Series: -Advanced Driver Education Series -Adjusting to the Changing Scene -Critical Maneuvers - Skids, Emergency Problems Films: Appendix I, Part D -Handling the Unexpected (Source 3) -Defensive Driving (Source 1 & 3) -Space Driving Tactics (Source 1)
Car Emergencies	The student will list the procedures for dealing with: 1. Stalled engine 2. Brake failure 3. Stuck accelerator 4. Blowout 5. Hood flying up 6. Fire in the vehicle 7. Headlight failure The student will recognize that in emergencies car control can be maintained by exerting physical effort.	
Evasive Maneuvers	The student will: 1. Classify the variables related to both the car and surroundings that will influence the choice of another path of travel	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	2. Recognize the possibility of avoiding striking a fixed object blocking the lane of travel 3. Identify actions or precautions that may be taken to recude the impact of a collision if a collision is imminent 4. Recognize the need for full steering control when attempting to cope with situations requiring evasive action 5. Cite situations in which controlled braking is necessary 6. Recognize physical factors that would influence the choice of a maneuver that could reduce the force of impact if a crash were unavoidable	-The Final Factor (Source 5) -Emergencies in the Making (Source 5) EVALUATION Unit knowledge test based on behaviorial objectives Section or unit quizzes Section or unit worksheets Monitoring of group discussions by teacher
Breakdowns	The student will list and explain proper procedures for the following parts of a situation when the vehicle becomes disabled: 1. Bringing the car to a safe stop off of the traveled portion of the highway 2. Taking precautions to prevent the car from being struck by or interfering with another vehicle 3. Providing emergency service to extinguish any fire and to correct problems caused by headlight failure, vapor lock, wet engine, overheating, or flat tire 4. Obtaining assistance when the problem cannot be corrected by the driver 5. Preparing the car and operating it properly when pushed or towed	Teacher assessment of the student's ability to identify, predict and decide based on situations presented in slides, filmstrips and other visual aids
Accidents	The student will: 1. Demonstrate an understanding of the responsibilities of a driver when involved in an accident. 2. List the steps of the accident reporting procedures	

UNIT SEVEN
INFLUENCES ON THE DRIVER

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Alcohol	The student will: 1. Recognize and know how to compensate for the effects of alcohol on his/her ability to drive	LEARNING ACTIVITIES Lecture Demonstrations Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Interactions Accident Analysis Surveys RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How To Drive -A Resource Curriculum in Driver and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education -Teacher's Guide to Alcohol and Driving: Fairfax County Public Schools and Virginia State Department of Education Audiovisual Aids: Transparencies: Appendix I, Part E -Alcohol Transparency Series Filmstrip Programs: -The Decision Is Yours Drivocator II Series: -Driving and Drinking -Man-Machine Interactions -Personality and Perception Films: Appendix I, Part D -Social Drinker and Anti-Social Driver (Source 3 & 5)
Drugs	The student will exhibit the knowledge and understanding of the effects and consequences of taking drugs and operating an automobile	
Impaired Vision and Hearing	The student will list the preventive actions that a driver could take to control the effects of impaired vision and hearing	
Illness	The student will list the preventive actions that a driver could take to control the effects of illness	
Fatigue	The student will list the preventive actions that a driver could take to control the effects of fatigue	
Preoccupation	The student will list the preventive actions that a driver could take to control the effects of preoccupations	
Carbon Monoxide	The student will identify the characteristics of carbon monoxide and list the preventive actions that a driver could take to control its effects	
Emotional Stress	The student will list the preventive actions that a driver could take to control the effects of emotional stress	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
		-Driving and Drinking (Source 2) -Drivin' and Drugs (Source 2) -Drugs, Drinking and Driving (Source 3 & 5) -Highball Highway (Source 3 & 5) -None for the Road (Source 3) -Alco Beat (Source 1) -Bottle and the Throttle (Source 2) -Split Second (Source 3) -Times 25 (Source 3) -Verdict at 1:32 (Source 3) -Point Zero Eight (Source 2) -How Much is too Much (Source 2) -The Plan, the Buzz, the Key, the Call (Source 2) EVALUATION Unit knowledge test based on behaviorial objectives Combined units knowledge test based on behaviorial objectives Section or unit worksheets Monitoring of group discussions by teacher Teacher assessment of the student's ability to identify, predict and decide based on information and situations presented in slides, filmstrips and other visual aids

UNIT EIGHT
DRIVER RESPONSIBILITY

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Virginia Vehicle Inspection Law	The student will: 1. Explain the Virginia Vehicle Inspection Law 2. List the vehicle equipment to be inspected	LEARNING ACTIVITIES Lecture Demonstration Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Discussion Use of Road Maps and Trip Expenditure Sheets by Students' to Plan and Map a Trip Virginia State Vehicle Inspector as a Resource Person Highway Design and/or Safety Engineer as a Resource Person Law Enforcement Officer Student Involvement in Mock Traffic Court - trial concerning a traffic offense RESOURCES Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How to Drive -A Resource Curriculum in Driver and Traffic Safety Education -Driver's Manual of Virginia Audiovisual Aids Films: Appendix I, Part D -In the Crash (Source 2 & 5) -Action Program (Source 3) -Matter of Judgment (Source 3) -Where Mileage Begins (Source 3 & 4) -Safe on Impact (Source 1)
Trip Planning	The student will list and explain the following procedures for travel planning: 1. Obtaining up-to-date maps 2. Map reading 3. Selecting the safest, most convient, and most economical route 4. Obtaining information from a reliable source 5. Loading objects 6. Selecting the best time of day 7. Calculating distances between points 8. Planning for travel well in advance of departure	
Improving the Highway Transportation System	The student will demonstrate cognitive knowledge of the following elements concerning system improvement: 1. Obtaining and maintaining a valid driver's license 2. State law concerning vehicle registration 3. Functions, methods, and requirements of highway safety programs 4. Duties and responsibilities of federal, state and local agencies in carrying out their role in highway safety 5. Nature of private organizations in promoting highway safety 6. Legislation process involved in establishing and changing traffic regulations	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
		-Safety First-Second-Third (Source 3 & 4) -Whiplash (Source 1) EVALUATION Unit knowledge test based on behavioral objectives Section or unit quizzes Section or unit worksheets Monitoring of group interactions and projects by teacher

DRIVER EDUCATION 9-12
Section C
September 3, 1974

UNIT NINE
CONSUMER PRACTICES

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Selecting an Automobile	The student will list the procedures involved in the businesslike process of selecting an automobile	**LEARNING ACTIVITIES** Lecture Demonstrations Learning Activities Package Audiovisual Aids Section or Unit Worksheets Group Interactions Purchasing of a Car Case Study (Example: Given a case study of a person with specified needs and resources who purchased a car, identify the good and bad decisions made by the purchaser.) Selection of Insurance (Example: Given a specific type and style of car, have a student contact an insurance agency and report to the class the recommended coverage and costs of insuring that car.) **RESOURCES** Literature: Appendix I, Part C -Driver Education and Traffic Safety -Sportsmanlike Driving -How to Drive -A Resource Curriculum in Driver Education and Traffic Safety Education -Equipment and Resource Material for Driver and Traffic Safety Education Audiovisual Aids: Filmstrip Programs Drivocator II Series: -Getting Your Money's Worth
Paying for the Automobile	The student will be able to make informed decisions concerning the method of payment when purchasing a vehicle	
Insurance	The student will list and explain the different types of insurance coverage and will be able to identify those types that satisfy his/her particular needs	
Preventive Maintenance	The student will explain the importance of and procedures for the following factors involved in preventive maintenance: 1. Routine servicing 2. Checks of the car's exterior 3. Subsystem checks 4. Engine service 5. Car repair 6. Improper maintenance 7. State inspection requirements	
Selecting a Service Agency	The student will list the factors that should be considered when: 1. Selecting a reliable car servicing agency 2. Selecting items for the car (tires, battery, brake fluid, oil, etc.)	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
		EVALUATION Unit knowledge test based on behaviorial objectives Combined units knowledge test based on behavioral objectives Section or unit quizzes Section or unit worksheets Monitoring of group discussions Teacher assessment of the student's ability to identify, predict and decide based on information presented in the filmstrip program, Getting Your Money's Worth

APPENDIX I.

DRIVER EDUCATION

A. THE IDENTIFICATION OF HIGHWAY ELEMENTS AND CLUES

SAMPLE STUDENT LEARNING PROGRAM

As a driver, you must observe and identify many highway events from all directions that are related to your car's movement. Whenever you fail to identify important events and clues related to your travel path, there is a good chance of an improper action with serious consequences. Of course, it is obvious that in a moving car you will have limited time to make the necessary identifications. Therefore, you will want to learn the most efficient habits and methods for gathering information about what is happening around your car at all times. The purpose of these lessons is just that.

MAIN IDEA

The driver of a moving car will need efficient visual habits and a systematic method for identifying highway elements and clues.

SUPPORTING IDEAS

Efficient visual habits provide for continuous searching and scanning patterns. All highway elements and clues can be classified into the following four major groups:

a. Other traffic units

b. Highway characteristics

c. Traffic controls

d. Driver's own vehicle

IDENTIFICATION LESSON #1

LESSON IDEA

Efficient visual habits provide for continuous searching and scanning patterns.

LESSON OBJECTIVES

1. When driving in the family car, you can demonstrate efficient scanning and search methods by shifting your eyes and attention to a different section of the traffic scene at least an average of every three seconds.
2. When driving in the family car, you will have the habit of checking one of the rearview mirrors or the gauges on the dash at least every five seconds in urban areas and at least every ten seconds in rural areas. You will make headchecks before each change of direction. You should be able to make these headchecks and still maintain proper lane control.

LEARNING ACTIVTIES

Required activities will be assigned by your teacher. The others are optional. You may think of more interesting activities to do and get credit for. Suggestions are welcome.

1. Read and discuss the procedures to follow for developing efficient eye habits, and the reasons for them. Describe to a classmate what the ground viewing habit is and how to check if a driver is using the twelve-second visual lead habits.
2. Practice your visual habits as an observer when riding with a friend or your parents. Ask for their reactions to the use of these habits and find out if they have some tips for you.
3. Practice eye habits in the family car. Use a check sheet and

the commentary driving method for evaluating other drivers. See if you can identify other drivers who are not using good visual habits.

4. As you walk to and from school with a friend, scan the surroundings for five seconds. Then describe all the objects you were able to identify. Focus your eyes straight ahead and compare what objects you can detect in your peripheral vision. Practice good visual habits as a pedestrian.

IDENTIFICATION LESSON #2

LESSON IDEA

All highway elements and clues can be classified into the following four major groups: (a) other traffic units, (b) highway characteristics, (c) traffic controls, and (d) the driver's own vehicle.

LESSON OBJECTIVES

You can list or state the four major groups or classes of highway elements that will help a driver be more systematic in his/her identifications. (Note--In the following objectives, you should be prepared to state verbally or describe in writing what you have identified.)

When exposed to given highway situations for a period of one to five seconds in the classroom or laboratory, you are able to do the following:

1. Identify and define four out of five highway elements that can be classified as part of (a) the highway, (b) other traffic units, (c) traffic controls, or (d) your own vehicle.
2. Identify those highway clues along the twelve-second travel path that define areas of (a) limited visibility, (b) limited space, and (c) limited traction.
3. Identify those traffic clues that will help you predict:
   a. changes in the direction of other vehicles
   b. changes in acceleration or speed of other vehicles
   c. changes in deceleration or braking of other vehicles
   d. probable driver errors or unusual actions
   e. probable actions of bicyclists
   f. probable actions of pedestrians
4. Identify those clues that can help you determine when a signal light is about to change or is not working properly.
5. Identify those feedback clues from your own vehicle control responses

that may indicate possible loss of control or a different path of travel from the one selected.

LEARNING ACTIVITIES

Required activities will be assigned by your teacher. The others are optional. You may wish to suggest others of interest.

1. Observe slides of highway situations that are flashed on the screen and identify the various elements and clues present.
2. Make up a list of elements for each of the major classifications. Then list all the clues that are related to each element or sub-element.
3. When riding with your parents or a friend, practice identifying clues by using the commentary driving methods. Have the experienced driver check out your observations.

B. Suggested Projects

1. Types of Projects

-Poster or other suitable visual aids

-Short oral summary by student (optional)

-A neat manuscript (ink)

2. Project Topics

-Adverse conditions

How do the following conditions affect driving? How do you drive in them? What are their specific dangers and how do you react to them? (a) Rain, (b) ice-snow, (c) fog, (d) gravel, (e) mud, (f) wet leaves, (g) rutty roads.

-Attitudes of average drivers concerning: How can these "improper" attitudes be changed? (a) Violations, (b) enforcement, (c) "their" driving abilities.

-Bad drivers

What causes them to act this way? What happens to them? Licensing procedures? Point system?

-Brakes

(a) Different types (mechanical, hydraulic, disc), (b) advantages of each, (c) care of brakes, (d) how to brake on steep hills, (e) brake fade, (f) common brake failures, (g) coasting (legal and illegal).

-Buying a car

Why buy a new car? How do you go about it? What are some of the methods and selling devices employed by dealers? What should you consider before buying?

-Car care and upkeep

(a) Preventive maintenance (engine), (b) preventive maintenance (body),

(c) preventive maintenance (tires), (d) practical maintenance hints, (e) cost of various preventive operations.

-Common car repairs

(a) Most common repairs--points and plugs, battery, tires, (b) cost of repairing the above, (c) how does the car act when each of the above malfunctions?

-Cost of operating a car

(a) Per mile, (b) yearly, (c) breakdown of cost.

-Drinking drivers

(a) Percent of fatalities in which alcohol was involved (national, local), (b) effects of alcohol (reaction time, physical), (c) quantity (in blood) to reach the various stages, (d) average person's reactions to the drinking driver (interview 25).

-Driving in foreign countries

(a) Cost of driving, (b) laws, (c) social customs of car and pedestrian behavior.

-Enforcement

(a) Local, (b) county--sheriff's department, (c) state--state police. Visit and explain their duties and areas.

-Emotional disorders

What causes them? How do they affect your driving? What should we do when we become "worked up" or "shook up"? Explain the physical reactions that occur for the above. What is the best prevention for the above?

-Fuels

(a) Type of fuel (gasoline, diesel, propane), (b) difference between brands of fuel, (c) spark knock, carbon deposit (explain what they

are and how to prevent them).

-Hot rodding

(a) What it is, (b) what the rules are; (c) is a true "hot rodder" a good driver when in own personal car on the public streets and highways--why?

-Insurance (automobile)

(a) Cost; (b) how does a bad driver obtain insurance? (c) will your driving record affect your insurance? (d) compulsory insurance (explain); (e) what is an unsatisfied judgment? (f) collision, liability insurance, medical, etc.

-Natural laws and how they affect driving

(a) Demonstration, (b) posters on the laws, (c) laws (gravity, momentum, centrifugal force, friction).

-Point system

(a) What it is, (b) history (other states), (c) advantages and disadvantages.

-Pointers for traveling

(a) Methods used by long-distance travelers, (b) dangers in this type of driving, (c) hints for car maintenance on long trips, (d) driver car (highway hypnosis).

-Post crash factors

How do you prevent further collision and injury? How do you get help for the injured? How do you treat bleeding, fractures, and shock?

-Social laws of operating a car

(a) Customs relating to car use, (b) social changes brought about by increased use of the auto (Emily Post Motor Manners).

-Traffic Courts and Penalties

(a) Teenagers, (b) adults, (c) probate court, (d) circuit court, (e) methods and punishment.

-Traffic control devices

(a) Formula for installing, (b) cost of installation, (c) results of a traffic installation, (d) other signs and markings, (e) advantages and disadvantages of each

-Traffic patterns

(a) One-way, (b) passing, (c) diamond intersections, (d) multiple lane, (e) cloverleaf, (f) left turns from various types of roadway.

C. Guide to Literature

Driver Education and Traffic Safety, Center for Safety Education, New York University, 1972, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Sportsmanlike Driving, American Automobile Association, 1970, Sixth Edition, Webster Division, McGraw-Hill Book Company, St. Louis, New York, San Francisco, Dallas.

How To Drive, American Automobile Association, 1972, AAA, Washington, D.C.

A Resource Curriculum in Driver and Traffic Safety Education, Automotive Safety Foundation, 1970, Highway Users' Foundation for Safety and Mobility, Washington, D.C.

Equipment and Resource Material for Driver and Traffic Safety Education, Driver Education Service, Division of Secondary Education, State Department of Education, Richmond, Virginia 23216.

Driver's Manual of Virginia, Commonwealth of Virginia, Division of Motor Vehicles, Richmond, Virginia.

Teacher's Guide to Alcohol and Driving, Fairfax County Public Schools and Virginia State Department of Education.

D. Guide to Films

School Driver Education Film Library		SOURCE ONE
1. Alco Beat	(Unit 7)	
2. Broken Glass	(Unit 1)	
3. City Driving Tactics	(Unit 4)	
4. Defensive Driving Tactics	(Unit 6)	
5. Freeway Driving Tactics	(Unit 4)	
6. Night Driving Tactics	(Unit 5)	
7. Reactions, Brakes, Time and Space	(Unit 2 & 3)	
8. Red Light Return	(Unit 1)	
9. Safe on Impact	(Unit 8)	
10. Space Driving Tactics	(Unit 3 & 6)	
11. Whiplash	(Unit 8)	

Fairfax County Public Schools, James Lee Media Center		SOURCE TWO
1. Bottle and the Throttle #01074	(Unit 7)	
2. Broken Glass #02143	(Unit 1)	
3. Defensive Driving Tactics #02086	(Unit 6)	
4. Drivin' and Drinkin' #3648	(Unit 7)	
5. Drivin' and Drugs #3649	(Unit 7)	
6. How Much Is Too Much #3546	(Unit 7)	
7. The Plan, the Buzz, the Key, the Call #3455	(Unit 7)	
8. Point Zero Eight #3457	(Unit 7)	
9. Your Car and the Laws of Nature #3637	(Unit 2)	
10. Your Permit to Drive #3638		
11. In the Crash #03424	(Unit 8)	
12. Motorcycle Driving Tactics #03261		
13. Power Train #03424		

Film Loan Library, Highway Safety Division of Virginia, P.O. Box 27472, Richmond, Virginia 23261, Phone 804-272-4321, ext. 275		SOURCE THREE
1. Action Program	(Unit 8)	
2. Auto Tire Hydroplaning	(Unit 5)	
3. Defensive Driving Tactics	(Unit 6)	
4. Drugs, Drinking, and Driving	(Unit 7)	
5. Handling the Unexpected	(Unit 6)	
6. Highball Highway	(Unit 7)	
7. How To Drive on Ice and Snow	(Unit 5)	
8. Matter of Judgment	(Unit 8)	
9. Night and Bad Weather Driving	(Unit 5)	
10. None for the Road	(Unit 7)	
11. Passing Fancy	(Unit 4)	
12. Safety First - Second - Third	(Unit 8)	
13. Social Drinker Anti-Social Driver	(Unit 7)	
14. Split Second	(Unit 7)	
15. Times 25	(Unit 7)	
16. Verdict At 1:32	(Unit 7)	
17. Where Mileage Begins	(Unit 8)	
18. Winter Driving	(Unit 5)	

General Motors Corporation, Public Relations Staff - Film Library, General Motors Building, Detroit, Michigan 48202 — SOURCE FOUR

1. Our American Crossroads (Unit 1)
2. Signs and Lines (Unit 4)
3. Safety First - Second - Third (Unit 8)
4. Where Mileage Begins (Unit 8)

Educational Motion Pictures, Bureau of Teaching Materials, State Department of Education, Richmond, Virginia 23216 — SOURCE FIVE

1. Broken Glass (Unit 1)
2. Drugs, Driving, Drinking (Unit 7)
3. Emergencies in the Making (Unit 6)
4. Final Factor (Unit 6)
5. Highball Highway (Unit 7)
6. In the Crash (Unit 8)
7. Motorcycle Driving Tactics
8. Night and Bad Weather Driving (Unit 5)
9. Parking Tactics (Unit 2)
10. Power Train
11. Social Drinker Andti-Social Driver (Unit 7)

E. Guide to Transparencies

"Into the Driver's Seat," Math-U-Matic, Inc., Oklahoma City, Oklahoma

Alcohol and Driving Transparencies, Fairfax County Public Schools

STRATEGIES FOR TEACHING AND LEARNING

IN-CAR INSTRUCTION

The in-car phase of driver education is a sequel to the classroom phase with emphasis placed on the judgment habits and skills of a responsible driver.

It is considered desirable for the classroom phase and the in-car phase to be taught as close together as possible. This allows for the applying of knowledge skills developed in the classroom to the minipulative skills of the in-car phase.

In-car instruction begins with the development of those basic skills needed for controlling the car. This is in part accomplished by the untilization of an off-street multiple-car facility. When the student reaches a desired level of competency, he/she then progresses to the real-world driving environment.

The in-car instruction continues with actual in-traffic experience designed to develop complex perceptual and decision-making skills while at the same time reinforcing the task of controlling the car.

DRIVER EDUCATION 9-12
Section C
September 3, 1974

IN-CAR CONTENT OUTLINE

Unit One - Introduction and Orientation

-Purpose of In-Car Instruction

-General Information

-General Rules for In-Car Instruction

-Facilities and Equipment

-Course Structure

Unit Two - Pre-Operation Checks and Putting the Car in Motion

-Pre-Ignition

-Starting the Car

-Stopping the Car

-Steering the Car

Unit Three - Controlling the Car

-Right and Left Turns

-Changing Direction

-Parking the Car

Unit Four - Controlling the Car and Interacting With Other Vehicles

-Two-Way Traffic

-Intersection Maneuvers

-Lane Changing

Unit Five - Driving in Traffic

-Residential Driving

-Open Road Driving

-Town or City Driving

Unit Six - Night Driving (Optional)

-Visibility and Scanning

-Car Control

Unit Seven - Advanced Driving Teachniques (Optional)

-Emergency Situations and Evasive Maneuvers

UNIT ONE
INTRODUCTION AND ORIENTATION

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Purpose of In-Car Instruction	The students must know: 1. That in-car instruction is designed to teach them safe driving habits 2. In-car instruction includes the teaching of skills, development of attitudes, and the imparting of knowledge	LEARNING ACTIVITIES Lecture Group Discussion Visual Aids RESOURCES Literature: Appendix II, Part A -Student Manual for In-Car Orientation -Learning To Drive; Skills, Concepts and Strategies -Driver's Manual of Virginia -Instructor's Manual for In-Car Instruction, Fairfax County Public Schools Audiovisual Aids: Transparencies: Information-Based Transparencies EVALUATION Objective observation of students reaction to the presentation of information.
General Information	The students must know: 1. The following requirements for state certification: a. Successful completion of classroom driver education b. Possession of a valid Virginia learner's permit c. Successful completion of in-car instruction 2. The following procedures for obtaining an operator's license: a. Successful completion of 36 hours of classroom instruction b. Possession of a valid Virginia learner's permit c. Successful completion of 14 hours of in-car instruction d. Possession of D.E.C.-1 form e. Satisfactory score on an in-car Department of Motor Vehicles driving test 3. That they will be issued an insurance credit certificate upon successful completion of the course	
General Rules for In-Car Instruction	The students must know: 1. Attendance procedures 2. Policies and regulations pertaining to personal and material safety 3. That food or drink is not allowed in the car	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	4. The following dress code: a. Shoes must be worn (no sandals) b. Loose-fitting jewelry around the wrist or head is not permitted c. Hair must be tied, pinned, or combed in a manner so as not to obstruct their vision 5. That smoking is not permitted on the driving range or in the cars 6. That malicious damage to the cars or other school property can result in immediate dismissal from the in-car instructional program 7. That books, coats and personal belongings must be placed in the trunk of the car or left at school 8. That maximum speed limits on the driving range is 10 mph 9. That a safe following distance of at least three car lengths must be maintained if conditions permit 10. That when observing they must be alert and attentive and avoid any unnecessary distractions 11. That any additional rules or regulations pertaining to personal and material safety will be at the discretion of the instructor	
Facilities and Equipment	The students must know: 1. The location of the range, its size and design, and its hazards 2. That means of communication may include: a. Two-way radio b. Direct voice c. Megaphone 3. That each vehicle has an identifying symbol or number that is clearly visible from all sides	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	4. That each vehicle has certain dual-controls which are designed to aid the instructor and make for safer driving conditions 5. That each vehicle is equipped with seat belts and shoulder harnesses and their use is mandatory 6. That each vehicle is equipped with gauges and controls which must be checked regularly for safe and efficient operation of the vehicle	
Course Structure	The students must know: 1. Course length: a. Number of days of instruction b. Number of hours per day c. Amount of time on the driving range d. Amount of time on the road 2. Student evaluation: a. Attitude (consciousness of limitations, adequate compensation for limitations, and good concentration) b. Proper visual survey of the traffic scene c. Quick accurate observations and interpretation of traffic conditions d. Proficiency in manipulative skills	

UNIT TWO
PRE-OPERATIVE CHECKS AND PUTTING THE CAR IN MOTION

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Pre-Ignition	The student will: 1. Make visual observation of the area around the car 2. Enter the car from the curb side if possible 3. Insert the key into the ignition 4. Adjust the seat and mirrors 5. Lock the doors 6. Fasten the seat belt and shoulder harness 7. Set the parking brake 8 Place the gear selector lever in "Park" 9. Use gear selection method	LEARNING ACTIVITIES Lecture Group Discussion Visual Aids Demonstrations by Instructor or Students Student Execution of Exercise, Forward and Backward Maneuvers: Appendix II, Part B, #1
Starting the Car	The student will: 1. Place right foot on brake and apply pressure 2. Place the selector lever in "Neutral" or "Park" 3. Turn the key to the "On" position 4. Check all the gauges 5. Depress the gas pedal slightly 6. Turn the key to "Start" position 7. Release the key and gas pedal when the engine starts 8. Recheck all the gauges 9. Move the selector lever to the appropriate gear 10. Release the parking brake 11. Check the traffic to the front, sides and rear 12. Signal intentions 13. Check over left shoulder for blind spot 14. Apply soft gas and proceed cautiously	RESOURCES Literature: Appendix II, Part A -Learning To Drive; Skills, Concepts and Strategies -The Multiple-Car Method -Driver's Manual for In-Car Instruction -Instructor's Manual for In-Car Instruction, Fairfax County Public Schools Audiovisual Aids: Transparencies depicting planned exercise procedures Chalkboard drawings illustrating planned exercise procedures Magnetic traffic board Multiple-car diagrams and exercise discriptions: Appendix II, Part B
Stopping the Car	The student will: 1. Check the traffic behind with the mirrors 2. Signal intentions 3. Release the gas pedal	EVALUATION Teacher assessment of student performance level based on a performance checklist

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	4. Apply a soft brake bringing the car to a complete stop 5. Place the selector lever in "Park" 6. Set the parking brake 7. Turn the key to the "Off" position 8. Remove the key 9. Unfasten the seat belt and shoulder harness 10. Leave the car by the curb side if possible	Student self-evaluation of performance
Steering the Car	The student must: Forward Maneuvers - Straight Line Only 1. Place hands opposite in the upper half of the steering wheel 2. Drive forward to the first flag line using the correct starting and stopping procedures 3. Drive forward to the second flag line Backward Maneuvers - Straight Line Only 1. Place right hand on the back of the seat 2. Place left hand on the top of the steering wheel 3. Back slowly to the first flag line 4. Back slowly to the starting point	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Right and Left Turns	Signal in advance of all maneuvers. Place the car in the appropriate position for maneuvers. Execute the following provedures for making right and left turns: 1. Check mirrors and blind spots 2. Signal intentions 3. Position vehicle 4. Reduce speed 5. Brake 6. Check traffic 7. Turn using hand-over-hand technique 8. Unwind the steering wheel by allowing it to slip through the hands, not losing contact with the steering wheel 9. Enter the proper lane 10. Accelerate about half way through the turn	LEARNING ACTIVITIES Lecture Group Discussion Visual Aids Demonstrations by Insturctors or Students Student Execution of Turning Maneuvers: Appendix II, Part B, #2, 3, 12, 13, & 17 Student Execution of Turnaround Maneuvers: Appendix II, Part B, #4, 5, & 6 Student Execution of Parking Maneuvers: Appendix II, Part B, #7 & 8 RESOURCES Literature: Appendix II, Part A -Learning To Drive; Skills, Concepts and Strategies -The Multiple-Car Method -Driver's Manual of Virginia -Instructor's Manual for In-Car Instruction, Fairfax County Public Schools Audiovisual Aids: Transparencies depicting planned exercise procedures and maneuvers Chalkboard drawings illustrating planned exercise procedures Magnetic traffic board Multiple-car diagrams and exercise descriptions: Appendix II, Part B
Changing Direction ("U" Turn, "3-Point Turn," "2-Point Turn")	The student will execute the following procedures in making the "U" turn: 1. Signal intentions 2. Stop in right lane 3. Signal left turn 4. Check traffic before moving to the left 5. Turn full to the left using the hand-over-hand technique 6. Adjust speed and steering in order to complete the maneuver in one efficient turn 7. Recheck traffic, front and rear, and proceed when safe The student will execute the following procedures in making the "3-point turn": 1. Signal intentions 2. Stop in right lane 3. Signal left turn 4. Check the traffic before moving to the left	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	5. Turn full to the left using the hand-over-hand steering technique 6. Stop about 18 inches from the curb 7. Turn the wheels to the right while moving the car up to the curb 8. Back the car to the right 9. Quickly straighten the sheels and then turn them to the left before stopping about 18 inches from the curb 10. Shift the car to the proper forward gear, check traffic and proceed when safe The student will execute the following procedures in making the "2-point turn": 1. Signal intentions 2. Stop with the rear bumper just past a driveway 3. Check traffic, when safe use backing procedures and back the car into the driveway 4. Shift to forward gear 5. Signal left turn 6. Check traffic and when safe proceed turning left	EVALUATION Teacher assessment of student performance level based on a performance checklist. Student self-efalucation of performance
Parking the Car	The student will execute the following procedures when parking on an upgrade with a curb: 1. Check rearview mirrors and signal for stop 2. Pull over to within six inches of the curb and stop 3. Let the car roll back slowly, turning the wheel to the left until the tire strikes the curb lightly 4. Move the car forward about one inch from the curb to relieve the pressure on the tires 5. Place the gear selector lever in "Park"; set the parking brake; turn off the ignition	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	The student will execute the following procedures when parking on an upgrade without a curb: 1. Check the rearview mirrors and signal for stop 2. Pull the car off the road and stop, turning the wheels hard to the right 3. Place the gear selector lever in "Park"; set the parking brake; turn off the ignition The student will execute the following procedures when parking on a downgrade with a curb: 1. Check the rearview mirrors and signal for stop 2. Pull over to within six inches of the curb and stop 3. Let the car roll forward, turning the wheel to the right until the car strikes the curb lightly 4. Shift to "Reverse" and move the car about one inch from the curb to relieve the pressure on the tires 5. Place the gear selector lever in "Park"; set the parking brake; turn off the ignition The student will execute the following procedures when parking on a downgrade without a curb: 1. Check the rearview mirrors and signal for stop 2. Pull the car off the road and stop, turning the wheels hard to the right 3. Place the gear selector lever in "Park"; set the parking brake; turn off the ignition The student will execute the following procedures when parallel parking: 1. Approach in the correct lane	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	2. Reduce speed and signal for a stop 3. Back slightly 4. Stop two feet away from and parallel to the other car with the back bumpers even 5. Back slowly and turn the wheels all the way to the right 6. Start straightening the wheels when the car is at a 45-degree angle 7. Turn the wheels sharply to the left when the front bumper of the car is even with the rear bumper of the other car 8. Stop before reaching the rear car 9. Move forward slowly, straightening the wheels and centering the car 10. When leaving the parking area: a. Signal intentions b. Check traffic over the left shoulder c. Move forward slowly turning the wheels hard to the left d. Enter the nearest lane e. Straighten wheels and proceed The student will execute the following procedures when angle parking: 1. Check traffic in the rearview mirrors 2. Signal intentions to slow down 3. Slow down and move the car as far to the left as possible 4. Begin steering to the right when the front bumper is in line with the parking space entrance 5. Straighten the wheels as the car moves into the center of the parking space 6. Let the car roll slowly until the tire touches the curb lightly and then back off slightly	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
	7. When leaving the parking space: a. Move the car straight back slowly, checking the traffic situation b. Continue backing, turning the wheels sharply to the right when the left front clears the car on the left c. Back into the correct lane and straighten the wheels before stopping d. Proceed when safe	

UNIT FOUR
CONTROLLING THE CAR AND INTERACTING WITH OTHER VEHICLES

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Two-Way Traffic	The student will demonstrate the following techniques related to moving forward and making right and left turns in two-way traffic: 1. Keep to the right of the center line 2. Maintain a safe following distance of at least three car lengths 3. Signal and slow down for all turns at the corners 4. Use hand-over-hand technique of steering Right and Left Turns 1. Signal intentions 2. Check rearview mirrors 3. Position the car properly 4. Control the car speed 5. Brake 6. Check the traffic 7. Turn using steering technique 8. Unwind the steering wheel by allowing it to slip through hands 9. Enter the appropriate lane 10. Accelerate about half way through the turn	LEARNING ACTIVITIES Lecture Group Discussions Audiovisual Aids Demonstrations by Instructor or Students Student Execution of Planned Exercises: Appendix II, Part B, #9, 10, 11, 14, 15, 16, & 18 RESOURCES Literature: Appendix II, Part A -Learning To Drive; Skills, Concepts and Strategies -The Multiple-Car Method -Driver's Manual of Virginia -Instructor's Manual for In-Car Instruction, Fairfax County Public Schools Audiovisual Aids: Transparencies depicting planned exercise procedures and maneuvers Chalkboard drawings illustrating planned exercise procedures and maneuvers Magnetic traffic board Multiple-car diagrams and exercise discriptions: Appendix II, Part B EVALUATION Teacher assessment of student performance level based on a performance checklist. Student self-evaluation of performance
Intersection Maneuvers	The student must: 1. Approach the intersection in the proper lane and stop the vehicle behind the crosswalk 2. Check the traffic in all directions 3. Yield to traffic on the right (same time rule) 4. Yield to any vehicle approaching the intersection first (first-car rule) 5. Yield when making a left turn to any vehicle approaching from the opposite direction and within the intersection, or so close to it as to constitute an immediate hazard (straight through rule) 6. Yield to any vehicle forcing the right of way	

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Lane Changing	The student will: 1. Know different situations where lane changes are required 2. Execute the following procedures in making lane changes a. Check the rearview mirrors b. Signal intentions c. Check the blind spot d. Make smooth, even lane changes e. Maintain or increase speed during lane changes	

UNIT FIVE
DRIVING IN TRAFFIC

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Residential Driving	The students will experience and respond appropriately to the following residential driving elements: 1. Signs, signals, and road markings 2. Vehicle speed control 3. Lane positioning 4. Space cushion adjustment 5. Pedestrians and animals 6. Cyclists 7. Intersections	LEARNING ACTIVITIES Route of Travel Behavioral Objectives and Situations Limited Commentary Driving Project: Appendix II, Part D RESOURCES Literature: Appendix II, Part A -Learning To Drive, Skills, Concepts and Strategies -Driver's Manual of Virginia -Instructor's Manual for In-Car Instruction, Fairfax County Public Schools -Teaching Driver and Traffic Safety Education EVALUATION Teacher assessment of student performance level based on a performance checklist Student self-evaluation of performance
Open-Road Driving	The students will respond appropriately to the following situations as they occur in open-road driving experiences: 1. Signs, signals, and markings 2. Speed and steering control 3. Passing and being passed 4. Entering and exiting freeways 5. Pedestrians, animals, and cyclists 6. Lane changes 7. Emergency situations	
Town or City Driving	The students will appropriately demonstrate the following skills involved in the town or city driving environment: 1. Perception and decision making 2. Observing laws, sign, signals, and markings 3. Car control 4. Vehicle spacing 5. Reacting to other highway users 6. Negotiating intersections 7. Parking	

UNIT SIX
NIGHT DRIVING (OPTIONAL)

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Visibility and Scanning	The students will: 1. Scan ahead to the limits of the headlights 2. Scan beyond the range of the headlights to pick up traffic clues and road conditons 3. Use high beams to increase visibility if conditions permit 4. Switch to low beam when approaching an oncoming vehicle or when following another vehicle 5. Avoid looking directly at headlights, use right edge of roadway as guide, and reduce speed when meeting oncoming vehicles	LEARNING ACTIVITIES Route of Travel Behavioral Objectives and Situations Limited Commentary Driving Project: Appendix II, Part D RESOURCES Literature: Appendix II, Part A -Learning To Drive, Skills, Concepts and Strategies -Driver's Manual of Virginia EVALUATION Teacher assessment of students performance level based on a performance checklist Student self-evaluation of performance
Car Control	The students will: 1. Refrain from overdriving headlights 2. Adjust to the normal speed 3. Leave an extra-large space cushion ahead	

UNIT SEVEN
ADVANCED DRIVING TECHNIQUES (OPTIONAL)

CONCEPTS	STUDENT BEHAVIOR	LEARNING ACTIVITIES RESOURCES AND EVALUATION
Emergency Situations and Evasive Maneuvers	The students will demonstrate the proper procedures for reacting to the following emergency and/or evasive situations: 1. Blocked lane 2. Skid 3. Blowout 4. Off-road recovery 5. Controlled braking	LEARNING ACTIVITIES This unit would be appropriate for those students who have mastered basic control tasks. A suitable instruction area must be available for skid control, blocked lane, and off-road recovery. However, some exercises can be accomplished at a low rate of speed on the regular multiple-car facility. Instructors should not attempt to introduce advanced techniques until adequate training has been undertaken. RESOURCES Literature: Appendix II, Part A -Advanced Driving Techniques, General Motors -Skid Control Instruction, Liberty Mutual Insurance Company EVALUATION Instructor's assessment of student's level of competency in performing exercises

APPENDIX II

A. Guide to Literature

Learning To Drive: Skills, Concepts and Strategies, William C. Anderson, Teachers College, Columbia University, Addison-Wesley Publishing Company, Menlo Park, California, 1971.

The Multiple-Car Method, Automotive Safety Foundation (HUFSAM), 1776 Massachusetts Avenue, Washington, D.C., 1968.

Driver's Manual of Virginia, Commonwealth of Virginia, Division of Motor Vehicles.

Instructor's Manual for In-Car Instruction, Department of Instructional Services, Division of Curriculum Services, Fairfax County Public Schools, Fairfax, Virginia.

Teaching Driving and Traffic Safety Education, American Automobile Assoc.

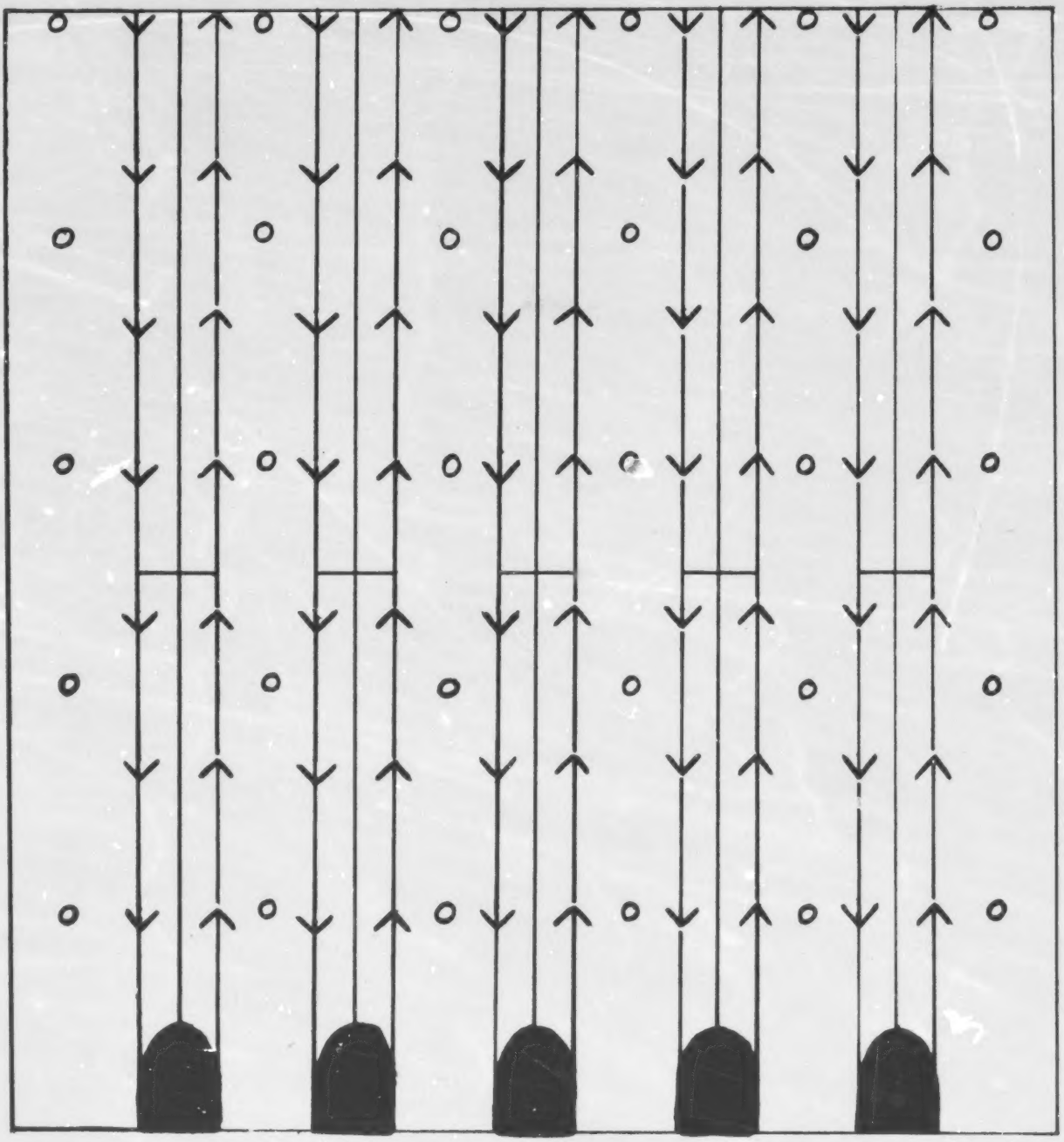
Skid Control Instruction, Liberty Mutual Insurance Co., 175 Berkley Street, Boston, Massachusetts 02117.

Development of an "Advanced Driver Education Program," F.D. Smithson, R.A. Whitworth, General Motors Engineering Staff, Detroit, Michigan.

Virginia Guide for Driver Education and Traffic Safety, Driver Education Service, State Department of Education, Richmond, Va.

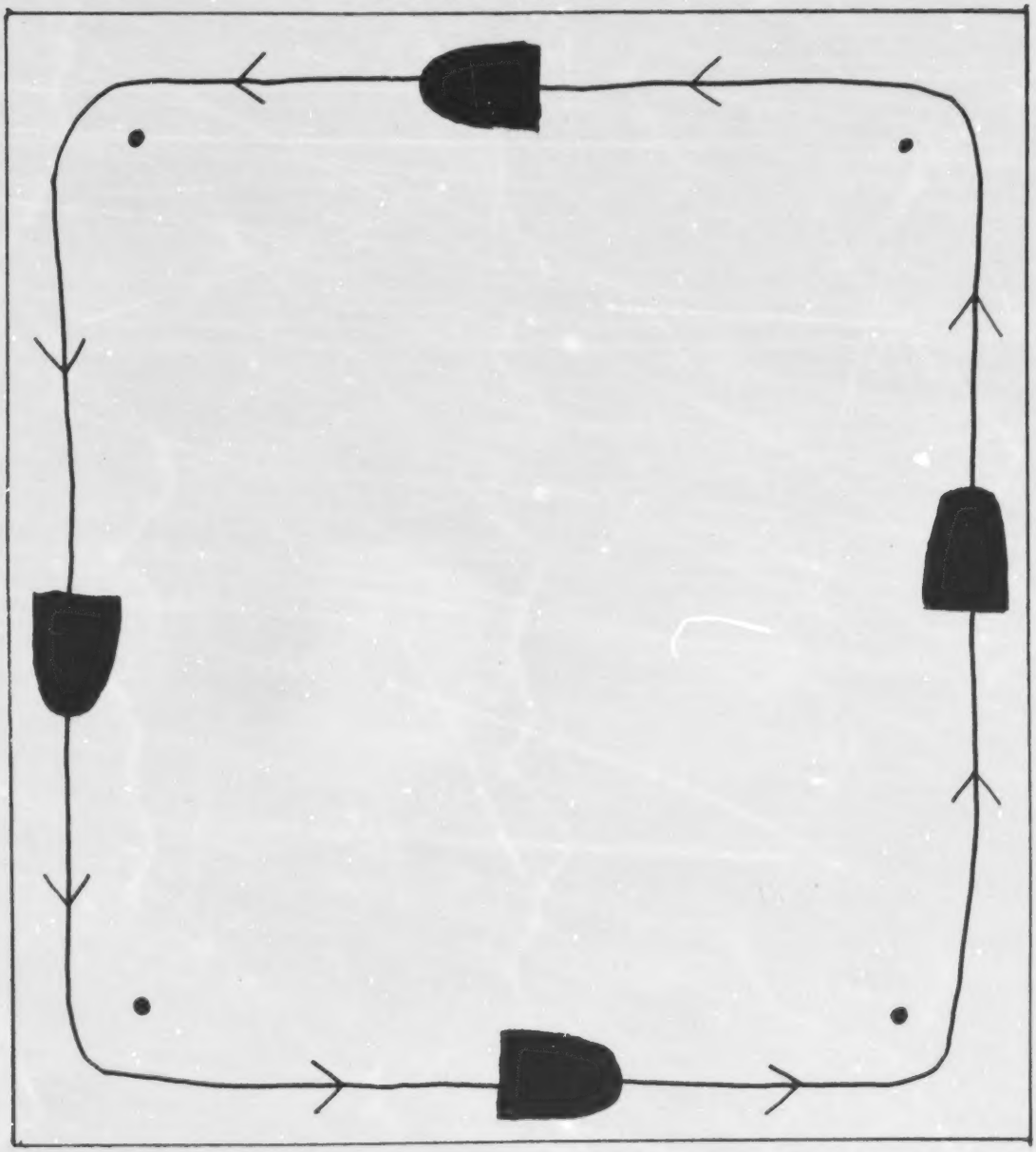
B. Diagrams

DIRECTIONAL CONTROL - FORWARD AND BACKWARD



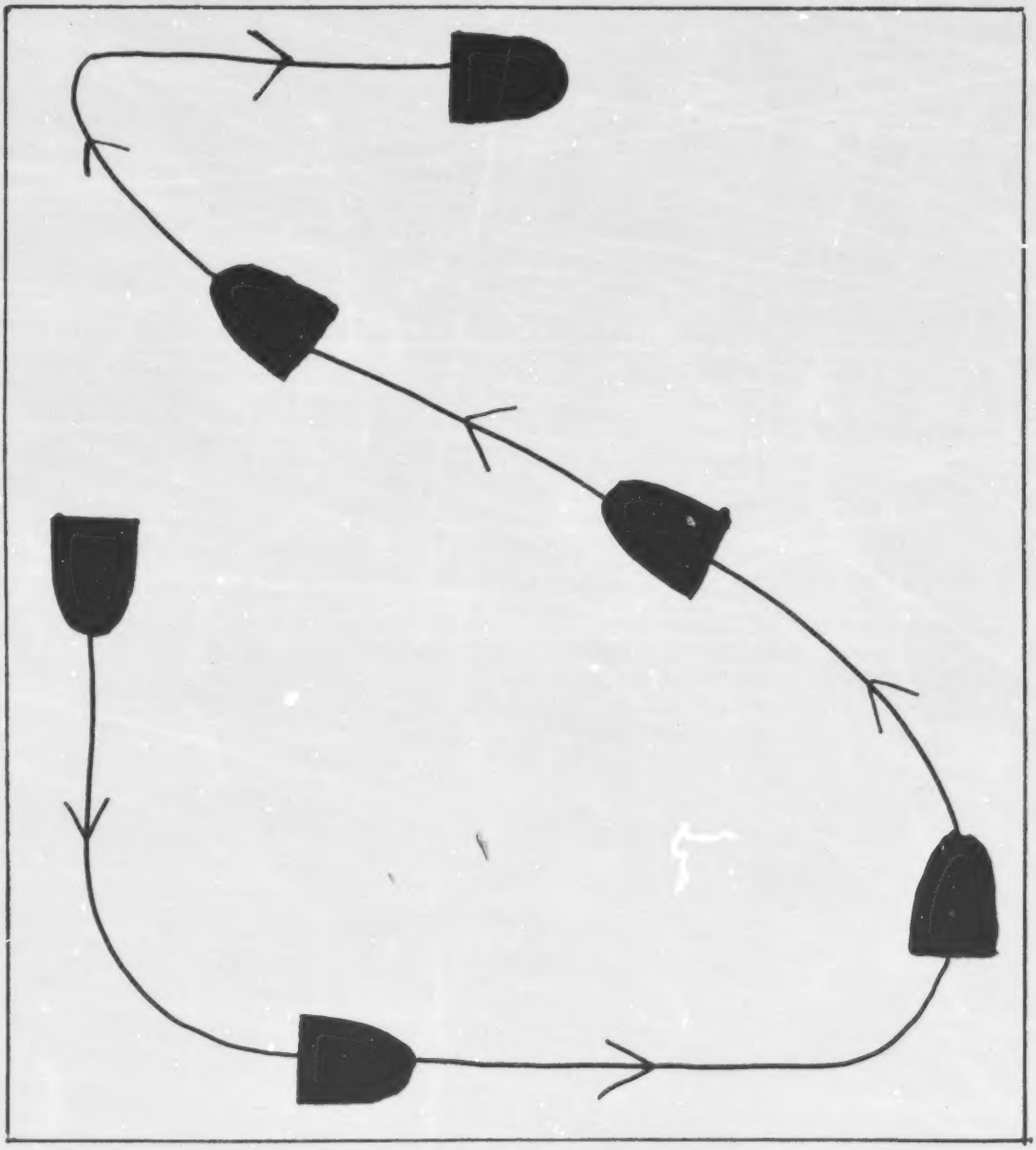
-With all the cars backed into curb, the instructor will talk students through starting procedures having cars move forward to mid-point of the range and then stop. Then move forward again and stop.
-After cars have been turned off, the instructor explains body position for backing. Then have the students start the engine, shift into reverse and back to the mid-point and stop. Then move backward again to the original starting position.

TURNING MANEUVERS



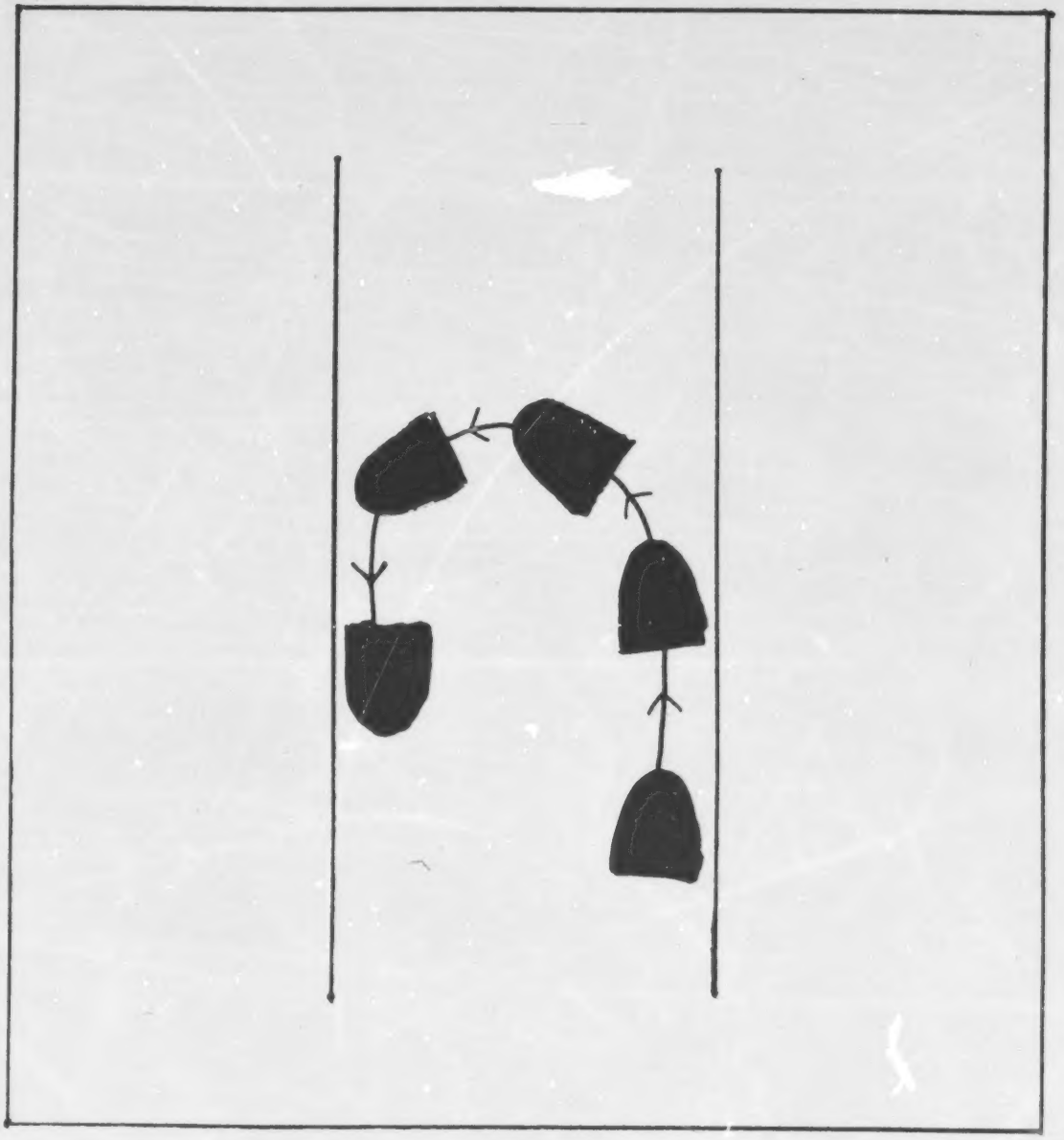
The purpose of this exercise is to develop steering and braking skills. Cars will fall into single file formation and will follow at apeeds not to exceed 10 mph. This movement continues until students appear to be able to handle steering and braking with adequate ease. Reverse direction and make right turns.

CHANGING LEFT TO RIGHT TURNS



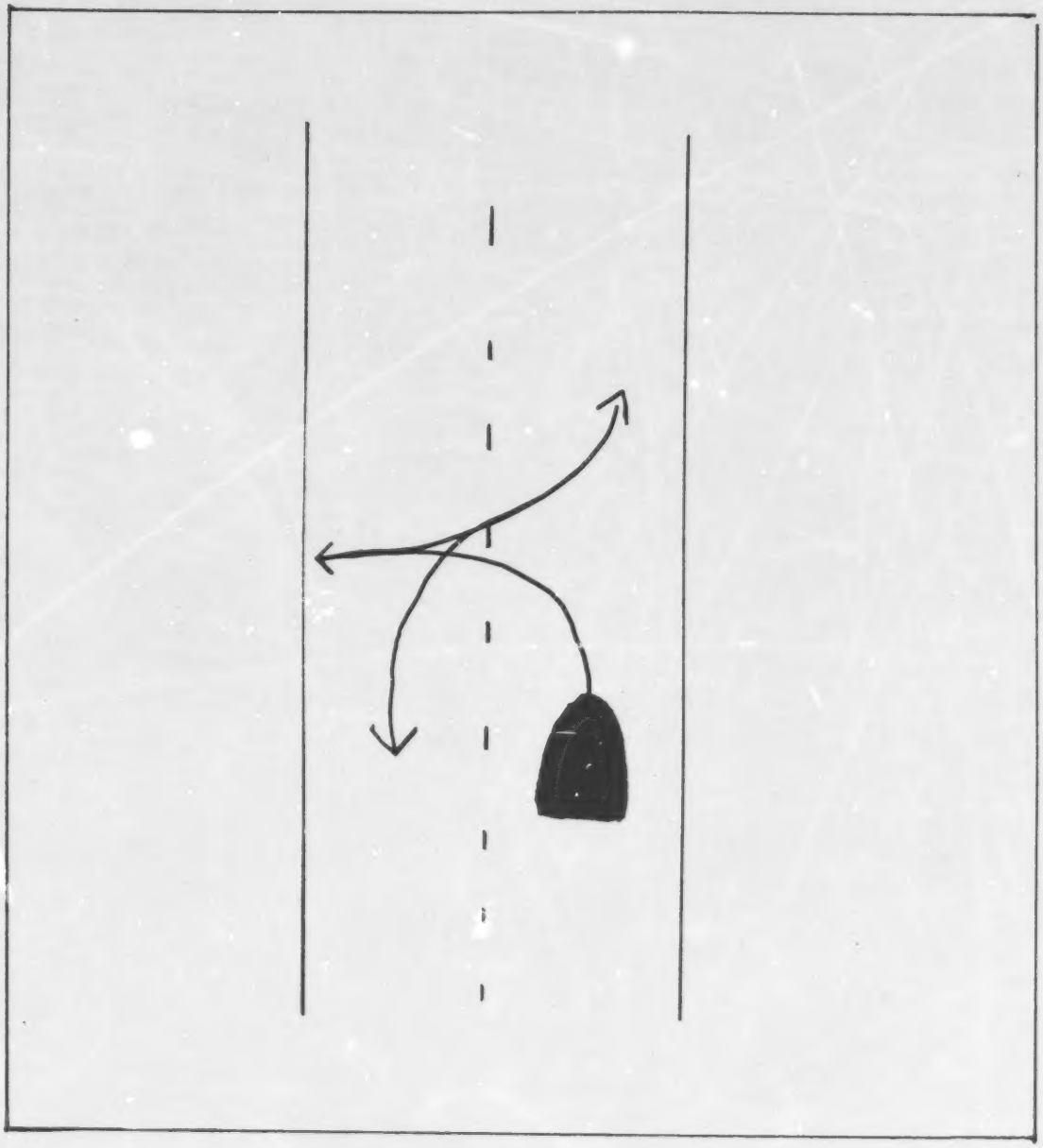
The purpose of this exercise is to expose the student to an activity requiring hand-over-hand steering and correct procedures for making right and left turns.

U-TURN



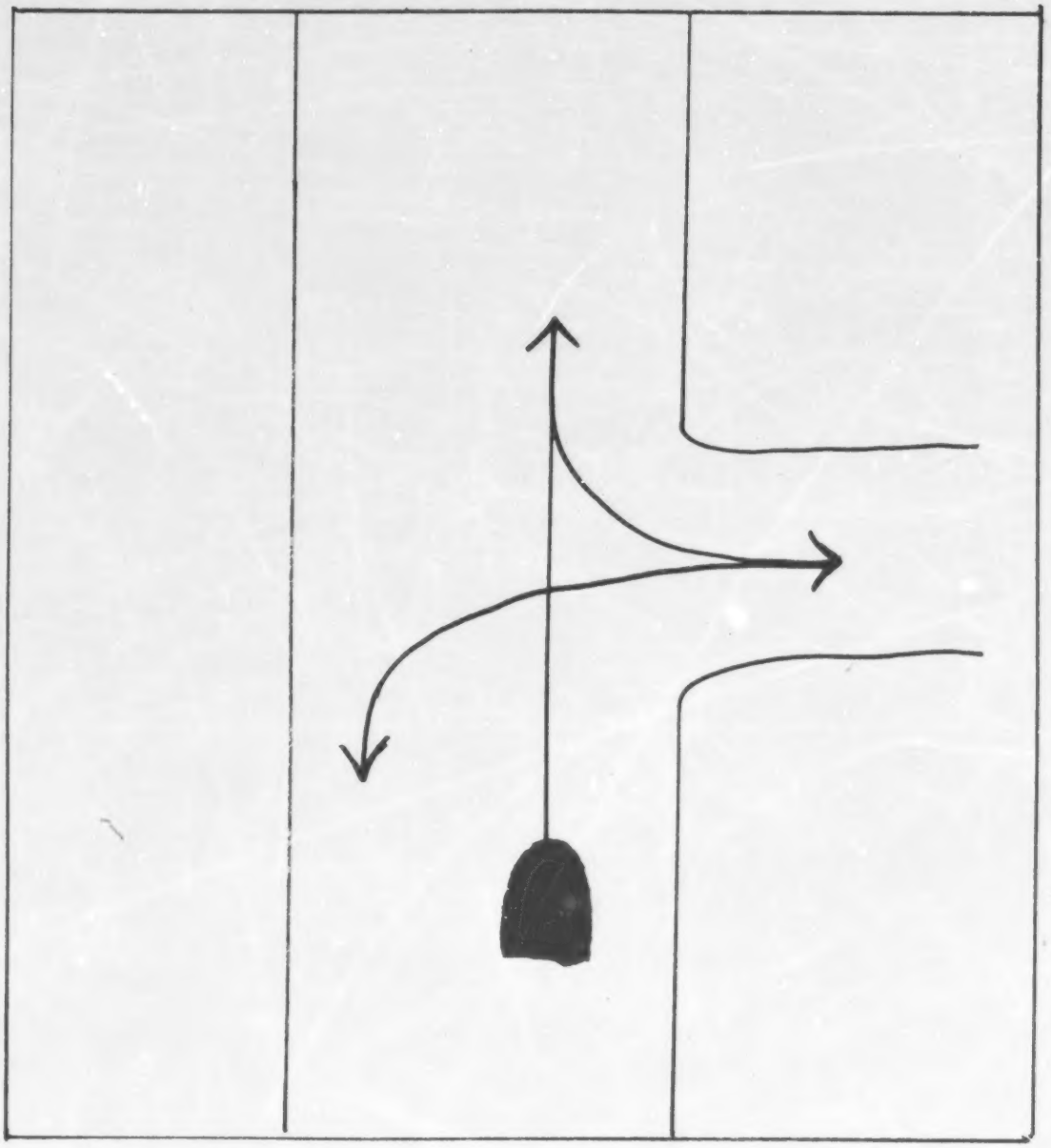
The purpose of this exercise is to provide a safe and controlled situation where students can practice the procedures involved in changing direction and in this case making a U-turn.

THREE-POINT TURN



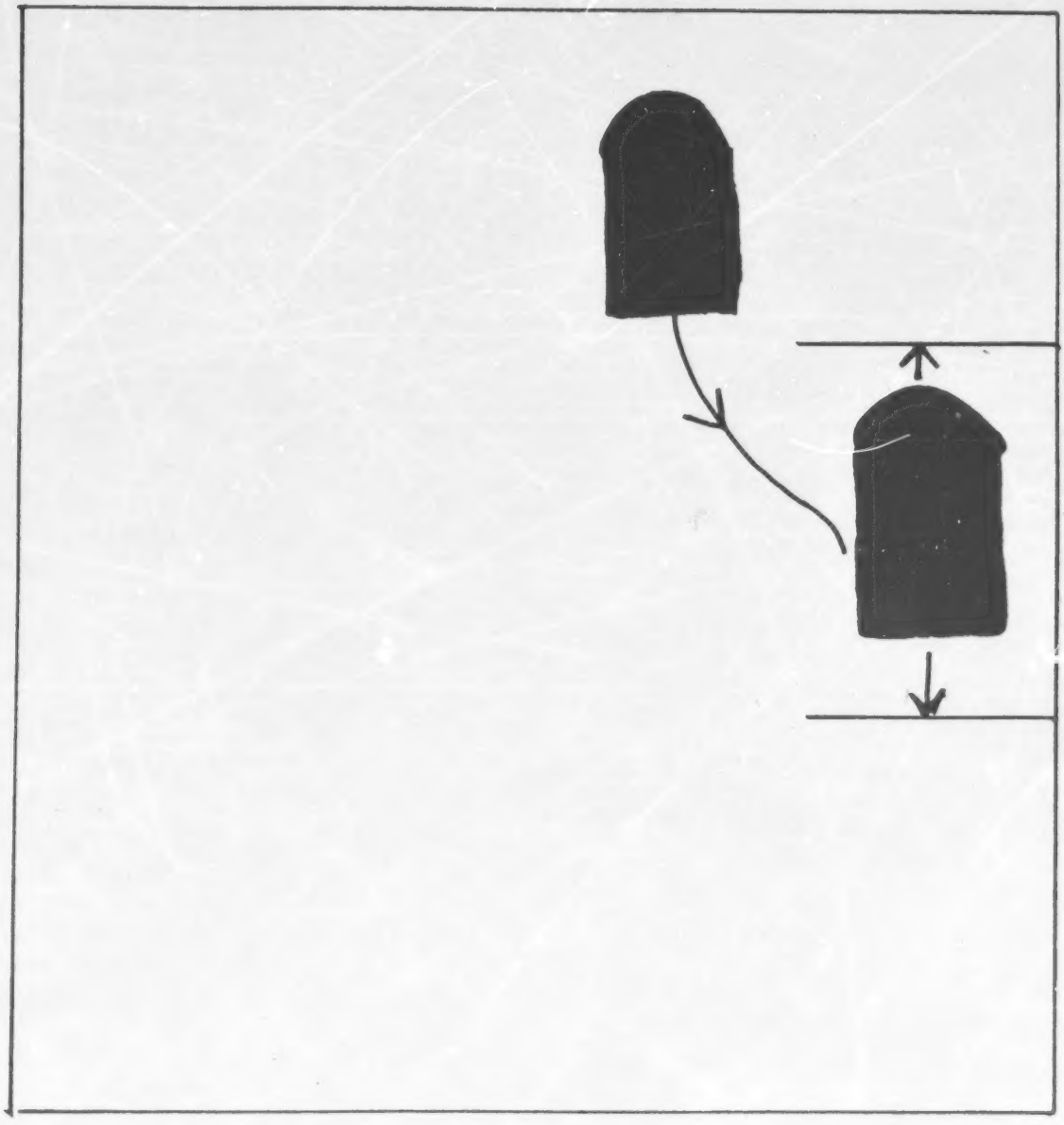
This exercise provides experience in changing direction when the turning radius is too narrow to permit a U-turn. It should be pointed out to students that this maneuver is time-consuming and could lead to increase accident exposure.

TWO-POINT TURN



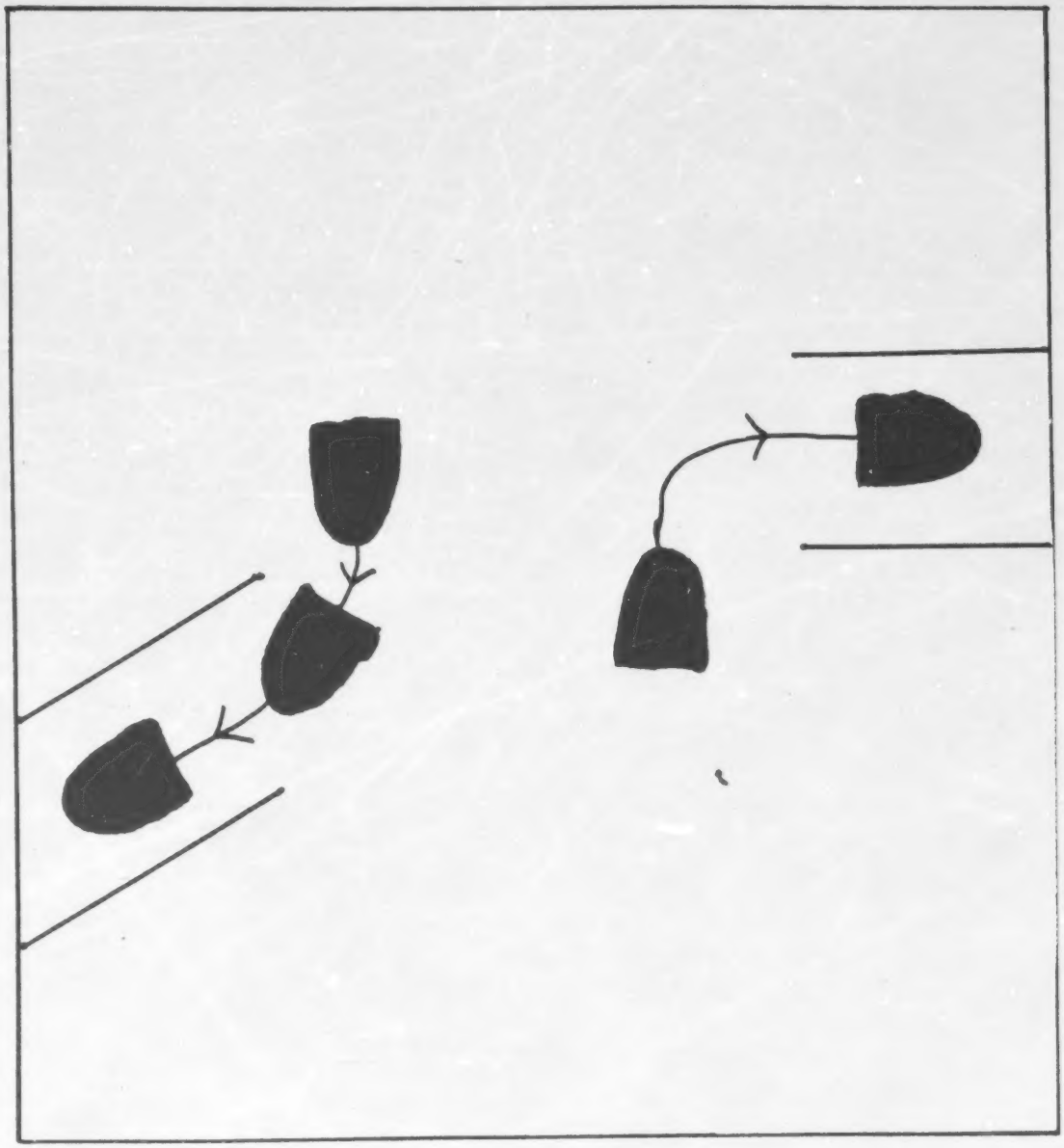
This exercise provides a practice area for another method of changing direction. This maneuver involves the same procedure as turning around in a driveway.

PARALLEL PARKING



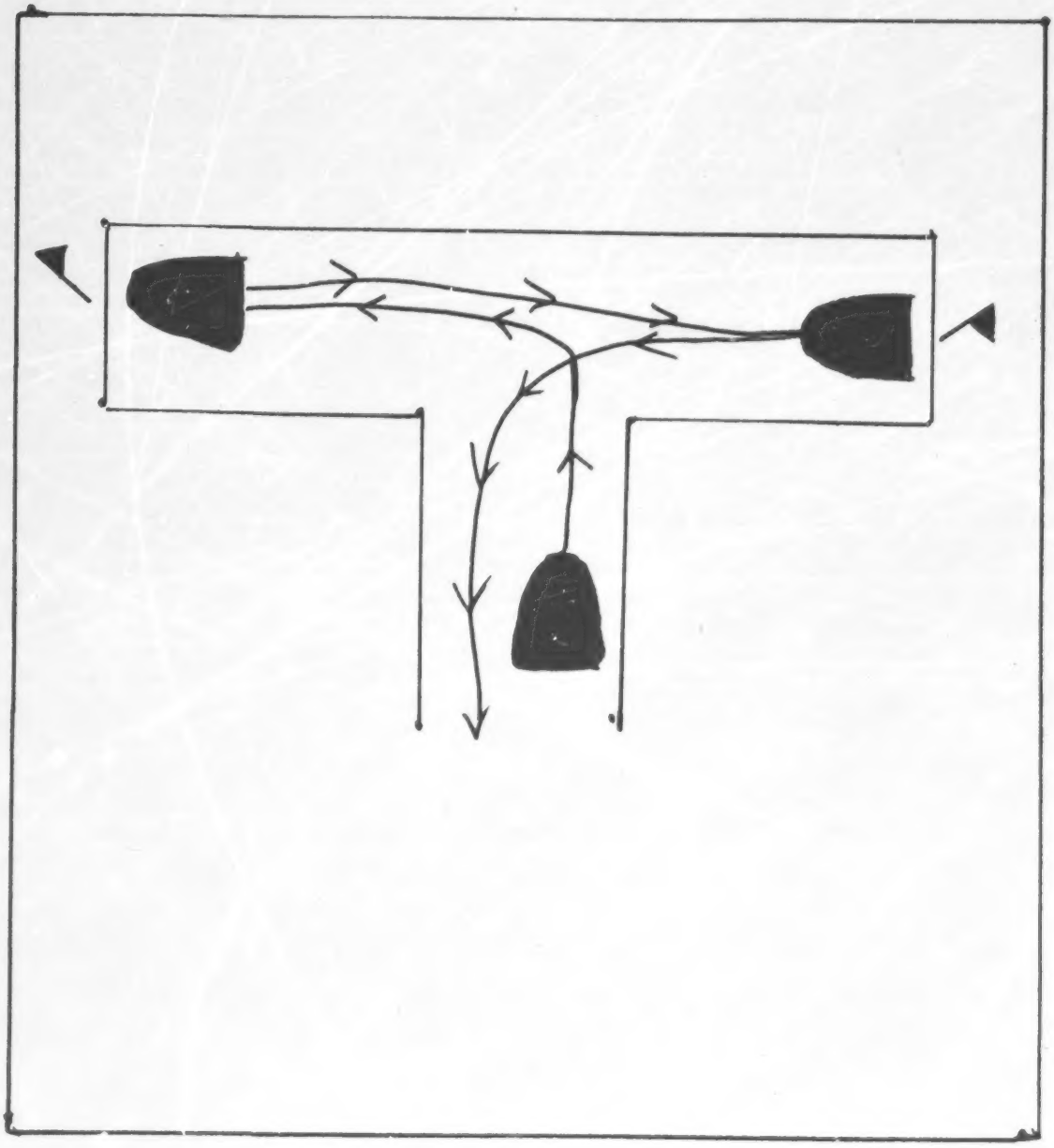
The purpose of the parallel parking exercise is to develop proper techniques necessary for the complex backing maneuver used in parallel parking.

ANGLE PARKING



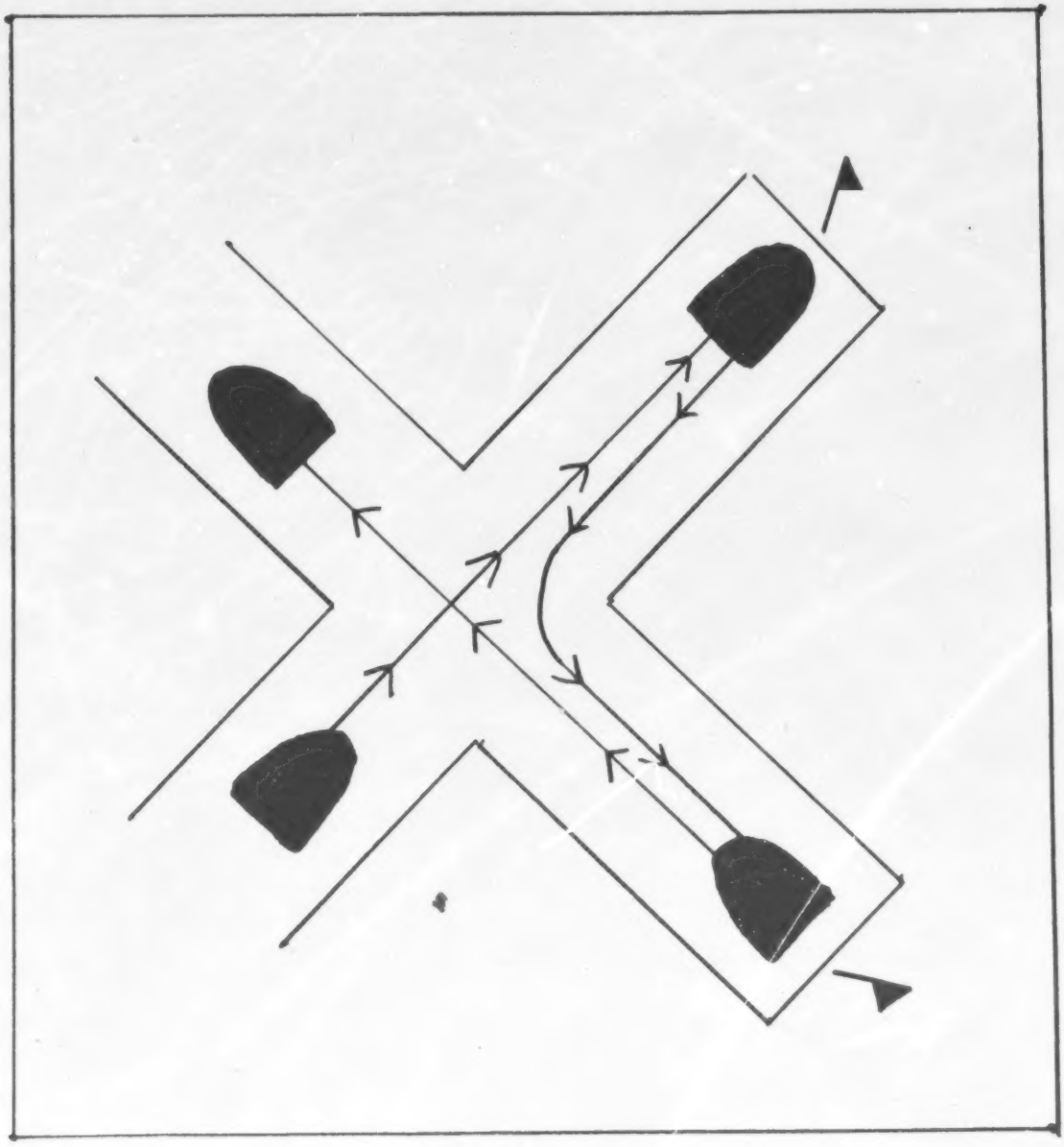
The angle parking exercise is presented as two types or different angles. This allows for the various situations confronting most drivers in todays traffic system.

THE "T" EXERCISE



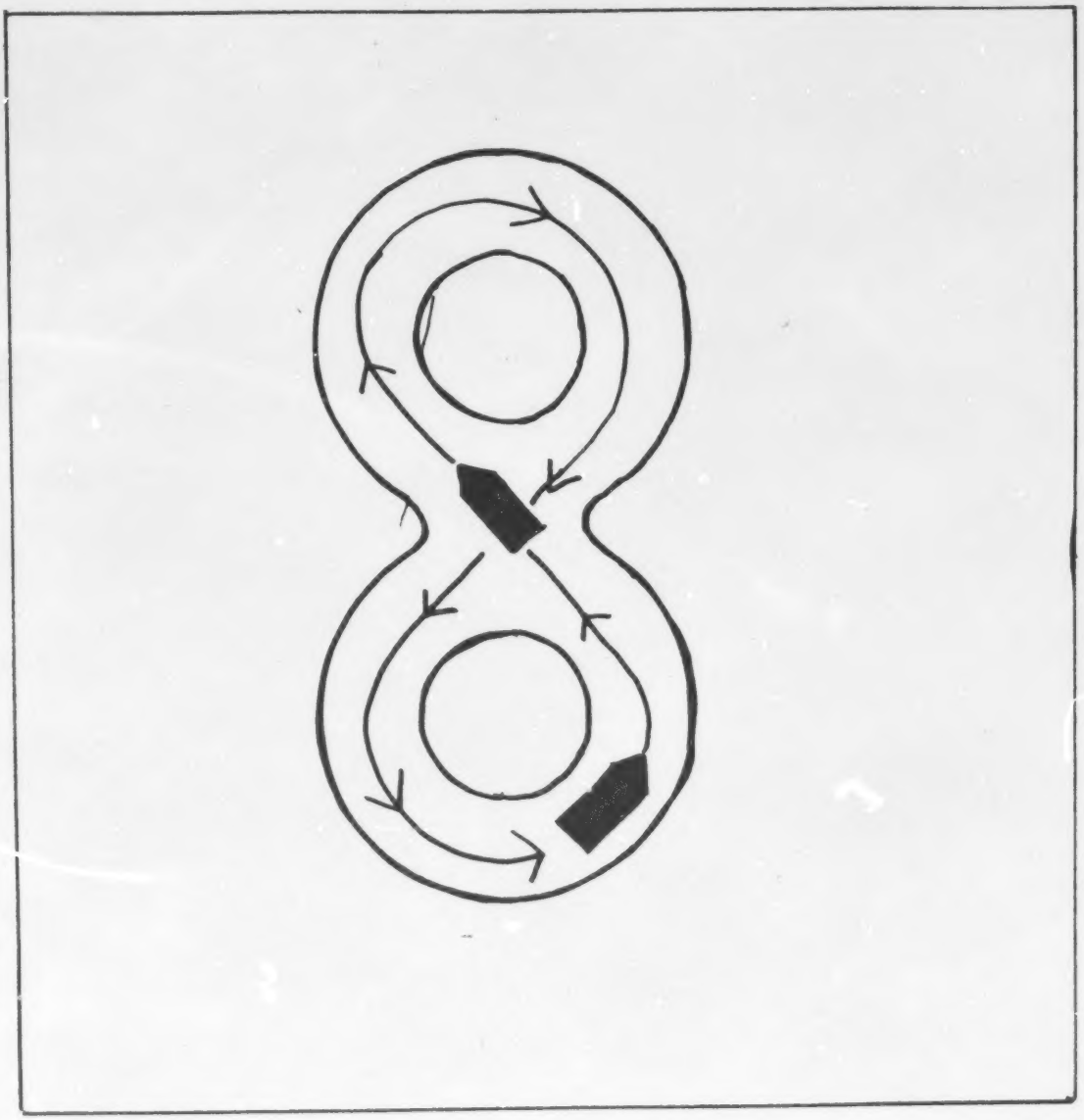
The "T" exercise provides practice in forward and reverse driving between two points.

THE "X" EXERCISE



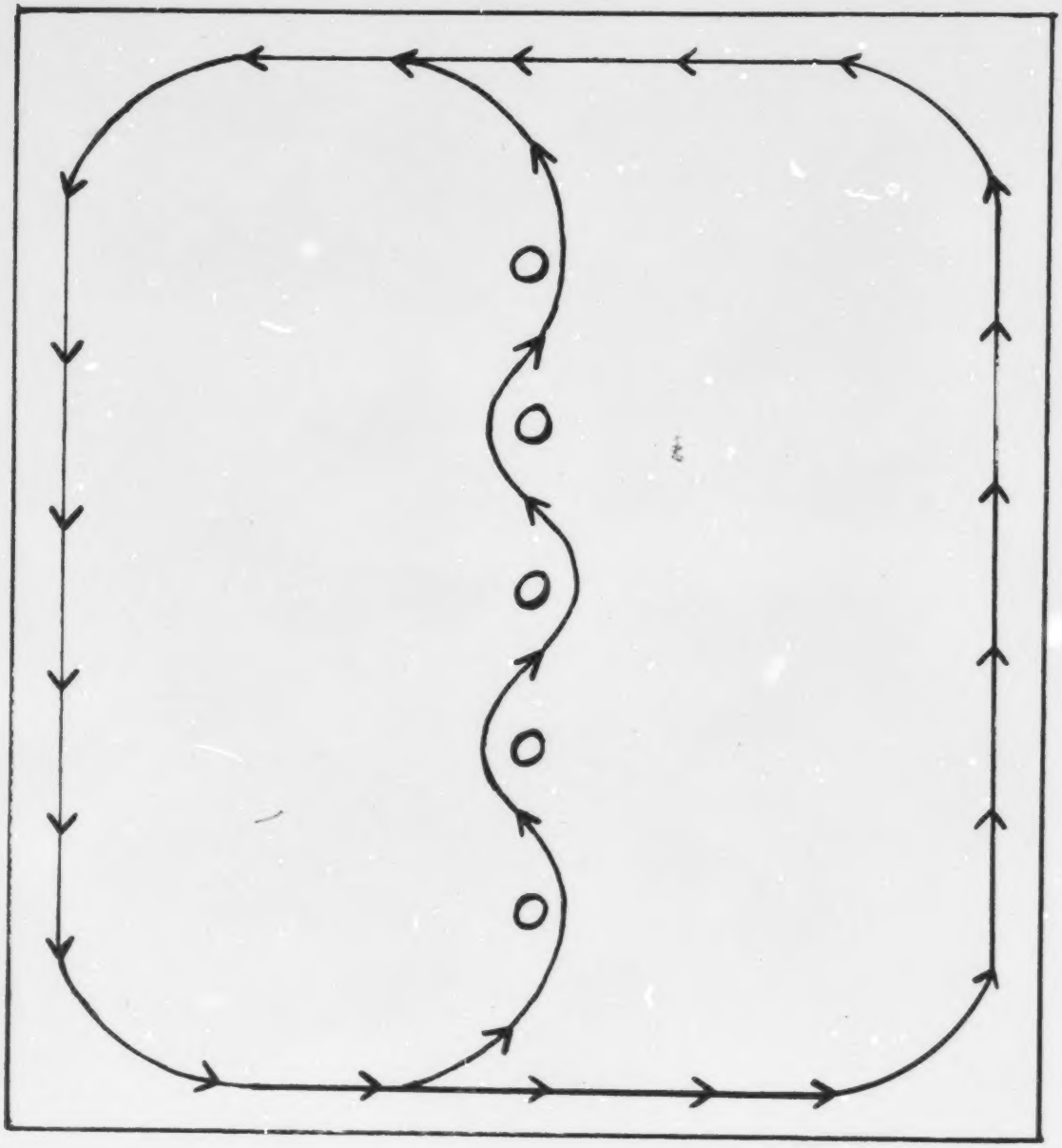
This exercise develops backing and turning skills by requiring the driver to maintain the vehicle within lanes while backing in a straight line to the intersecting point of the "X," then negotiating a rear turn into the designated lane.

FIGURE "8" EXERCISE



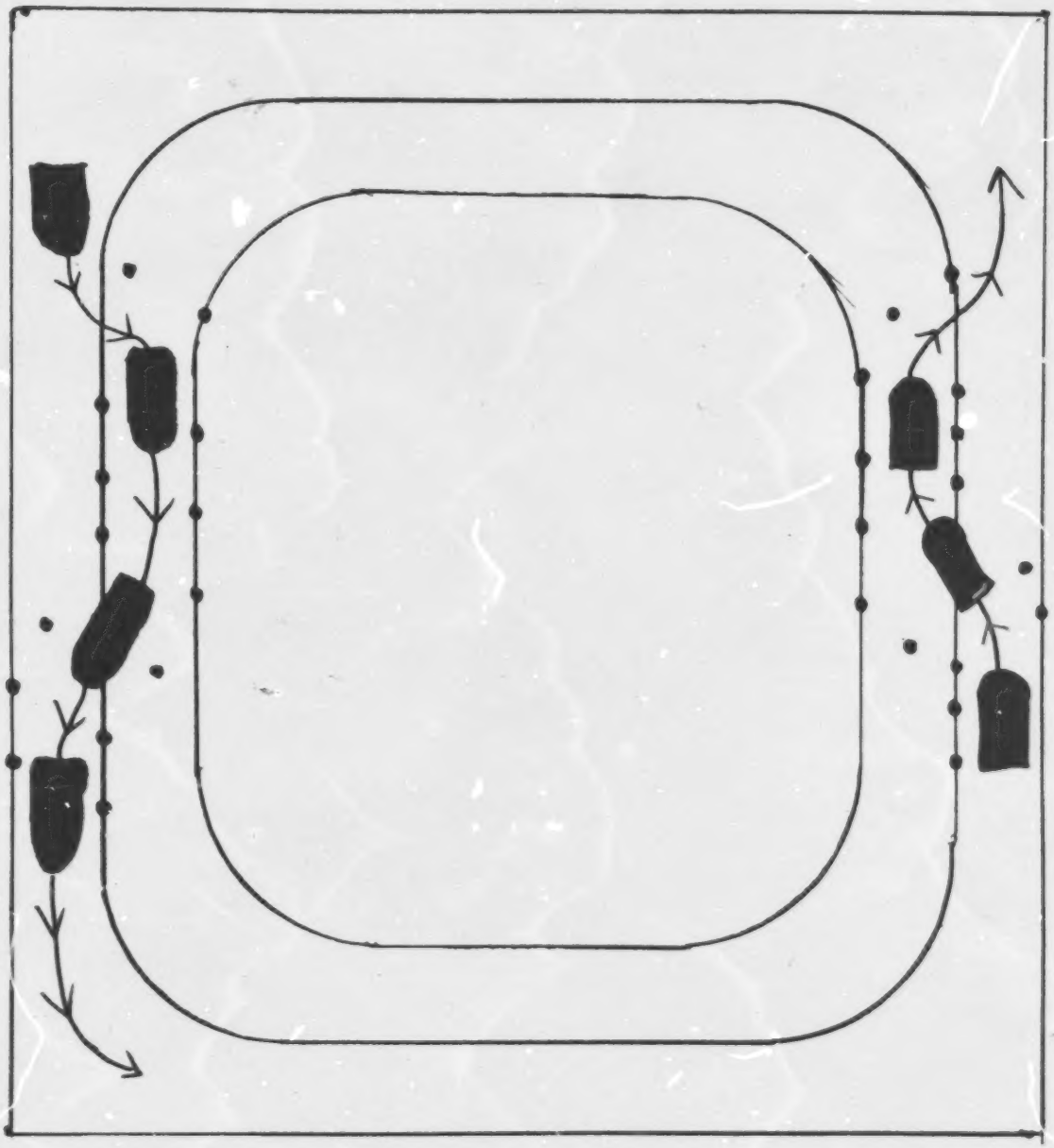
This exercise helps develop correct hand-over-hand techniques. As the vehicle moves slowly through the exercise, the driver practices hand-over-hand steering in order to keep his/her car within the lane lines. It might be advisable for some students to drive through this exercise in reverse.

SERPENTINE DRILL



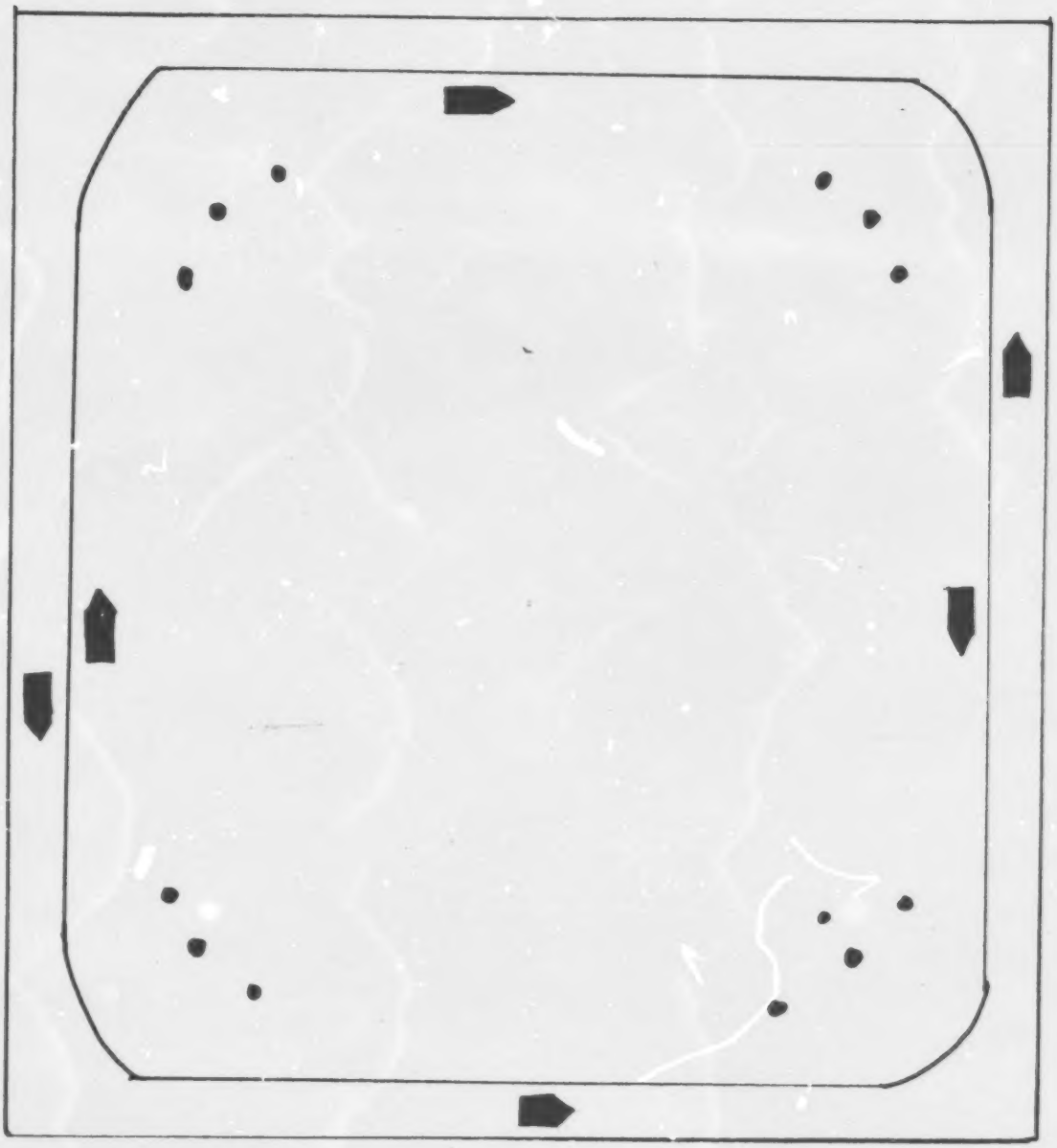
The Serpentine course is incorporated to develop proper hand positions, rhythm, and timing of the steering technique, and to increase the driver's ability to perceive the spatial relationship of the vehicle with respect to fixed obstacles.

LANE CHANGING



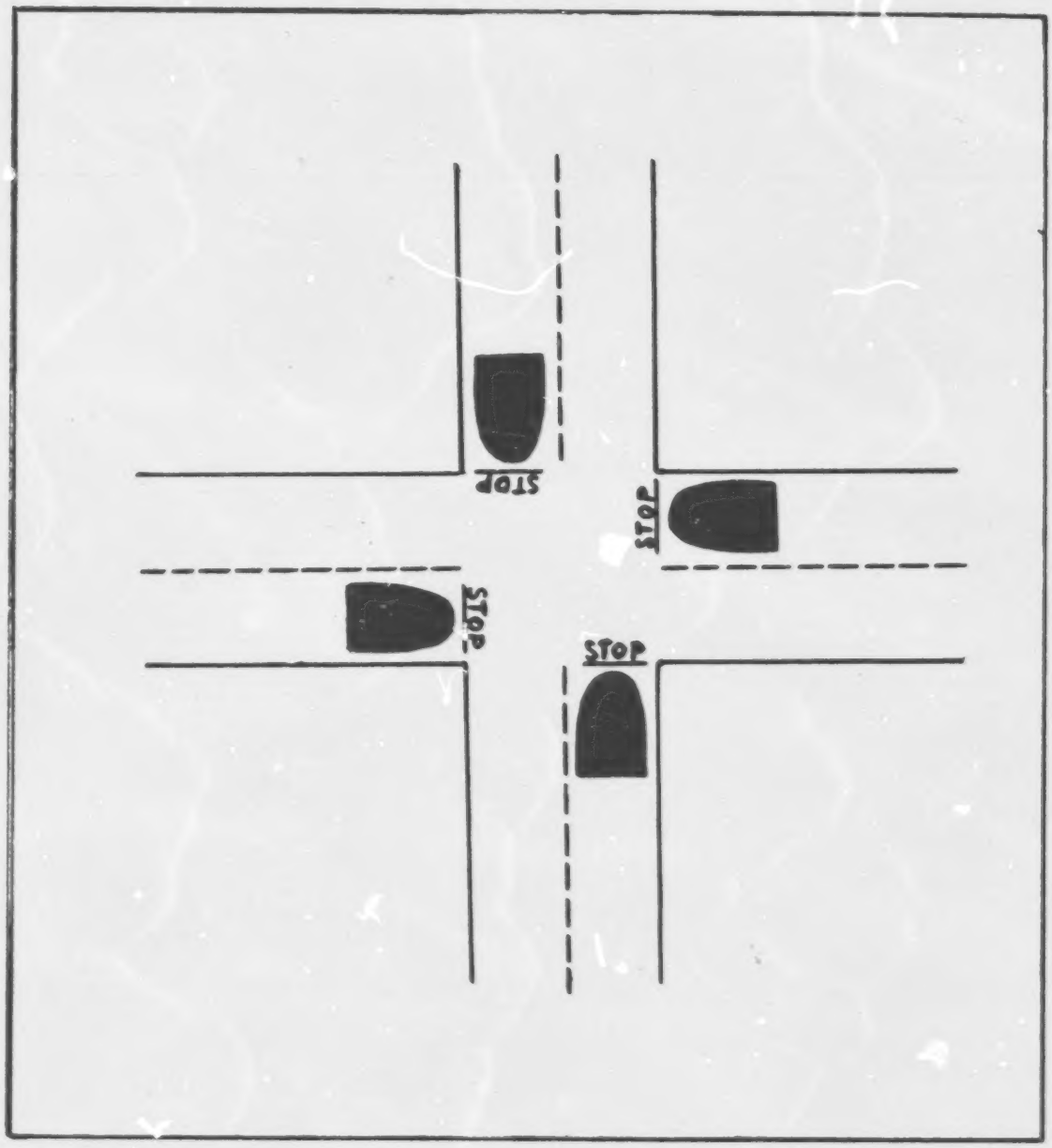
The lane changing exercise is presented to familiarize students with the proper techniques used in the passing maneuver. This should be done at a speed of not more than 15 mph. The instructor should pay special attention to proper signaling and head position.

TWO-WAY TRAFFIC DRILL



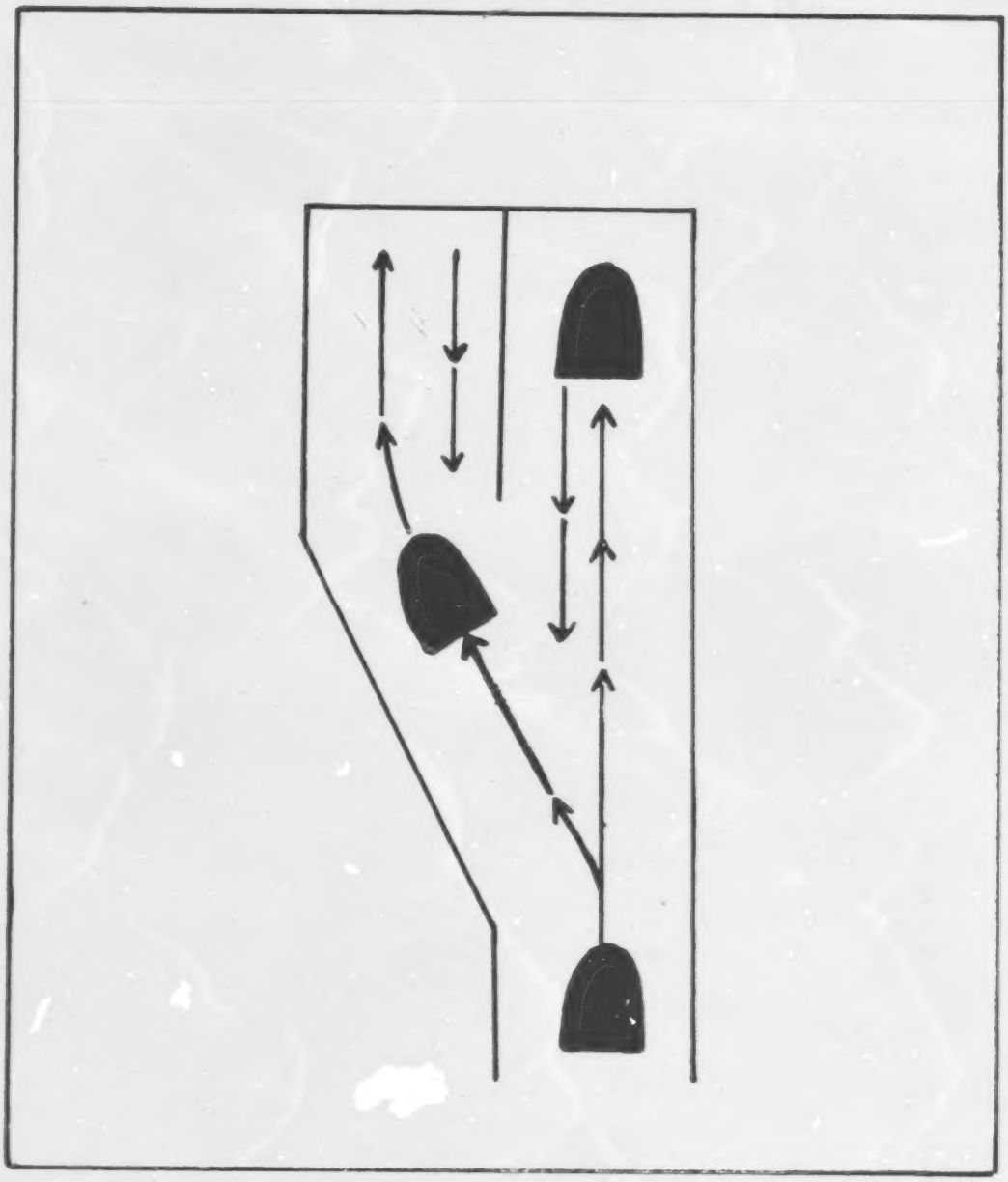
The purpose of the two-way traffic drill is to expose students to their initial experience of meeting oncoming traffic while proceeding at a speed not to exceed 10 mph.

FOUR-WAY STOP



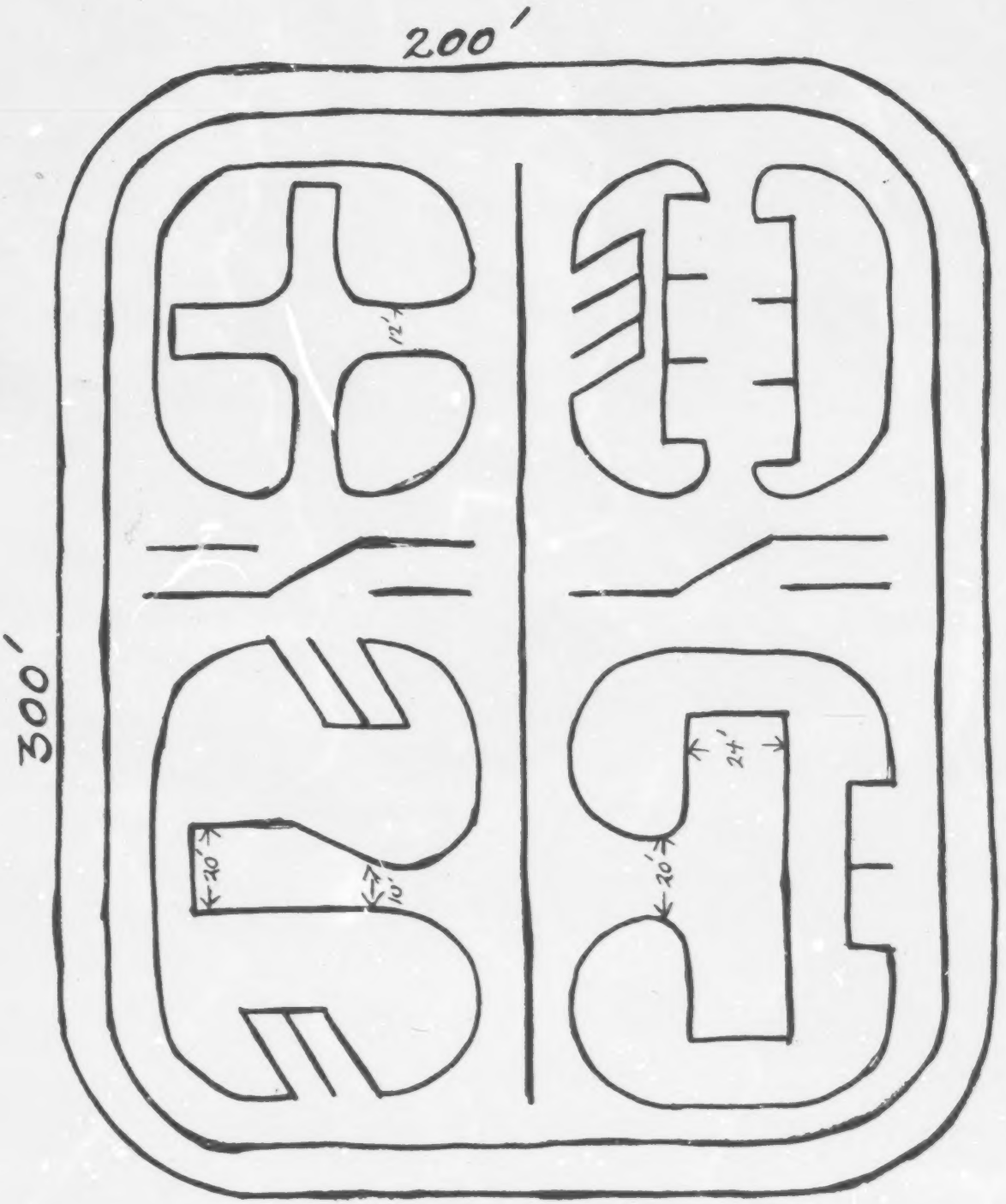
This exercise is designed to aid the students in making the proper decisions when approaching controlled intersections.

DOUBLE CAR GARAGE



This exercise is designed to acquaint students with the task of turning into narrow driveways, getting into an off-set garage and backing out into a street.

C. Suggested Layout for Multiple-Car Facility



D. Limited Commentary Driving

Limited commentary driving occurs when the student tells the instructor what he/she sees and what action he/she is going to take.

This can be undertaken in order to help students develop skills in identification, prediction, decision, and execution. This also enables the instructor to assess the student's scanning and evaluating techniques.

Some of the general guidelines for using "commentary driving" appear below:

1. Use words or short phrases instead of long sentences
2. Identify only critical situations or obstacles
3. Do not attempt to explain situations
4. Make identifications well in advance